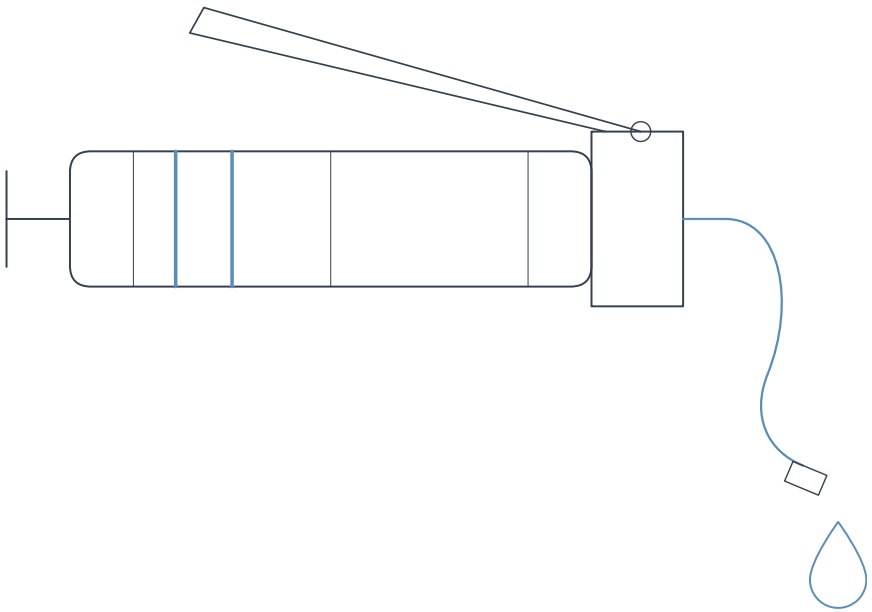
IRANOL

Products Specifications Manual

کاتالوگ مشخصات محصولات ایرانول



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IRANOL OIL Co.

Manuals of Usage and Products Specifications - IRANOL OIL Co.

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IRANOL Company Overview

IRANOL Company is a pioneer in the lubricant industry in Iran, established in 2003 as part of the country's privatization, liberalization, and economic stabilization efforts.

The company operates independently and is owned by private shareholders. It manages two lubricant refineries in Tehran and Abadan, which were originally part of the Tehran and Abadan Oil Refineries under the National Iranian Oil Company (NIOC).

The Tehran refinery includes the following units:

PDA Unit for producing Bright Stock

Furfural Extraction Unit

MEK Dewaxing Unit

Hydro Finishing Unit

Blending, Canning, and Packaging Unit

IRANOL Company has modernized and expanded its operations to serve both domestic and international markets. The company offers a wide range of products, including:

Engine Lubricant

Various industrial Lubricant

Rubber process oils

PDA tar

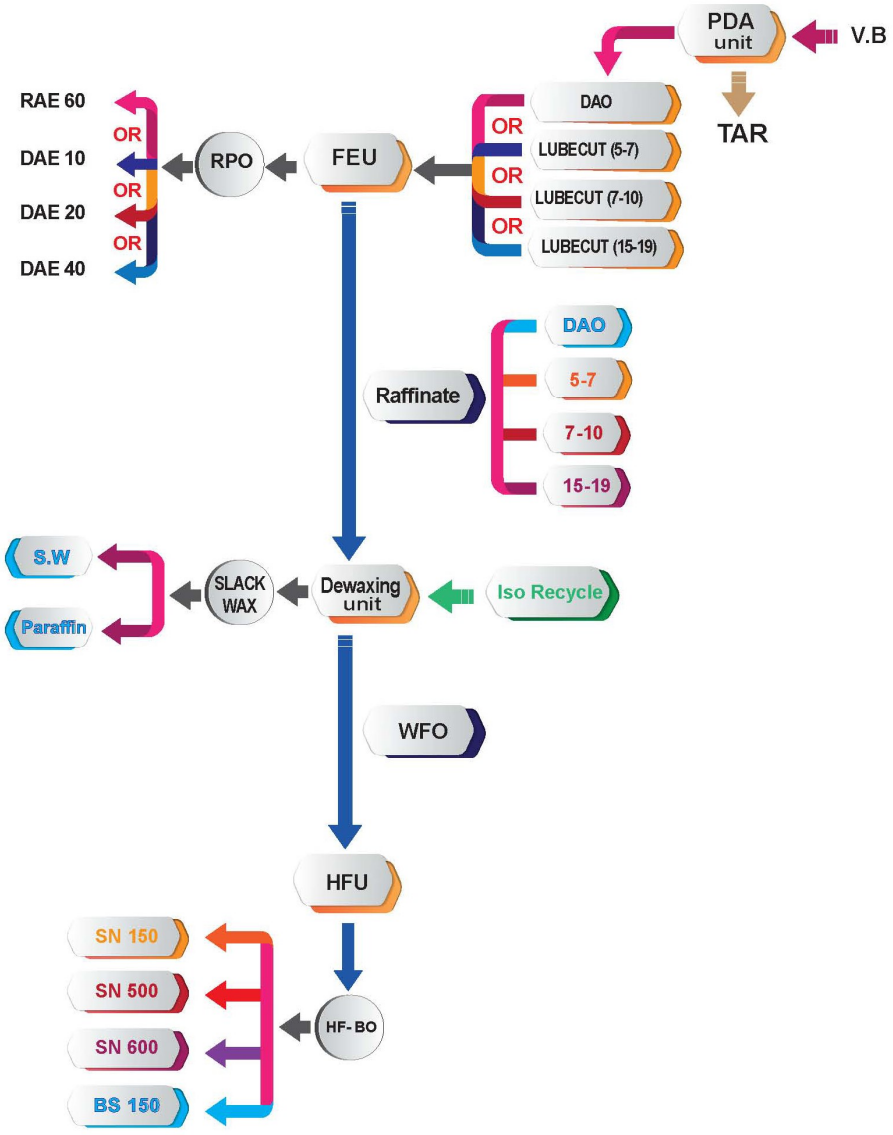
Slack wax

Base oils

Today, IRANOL Company is recognized as a leading supplier, distributor, and producer of premium automotive and industrial products and services. A dedicated technical support team is always available to address customer inquiries and provide tailored solutions.

Choosing IRANOL means opting for quality, innovation, and reliability. With personalized attention, prompt responses, and customized solutions, IRANOL ensures that every customer receives the best possible service. Whether serving domestic industries or global markets, IRANOL is committed to delivering excellence and meeting the diverse needs of its customers.

Flow Chart of IRANOL lubricant operation and products



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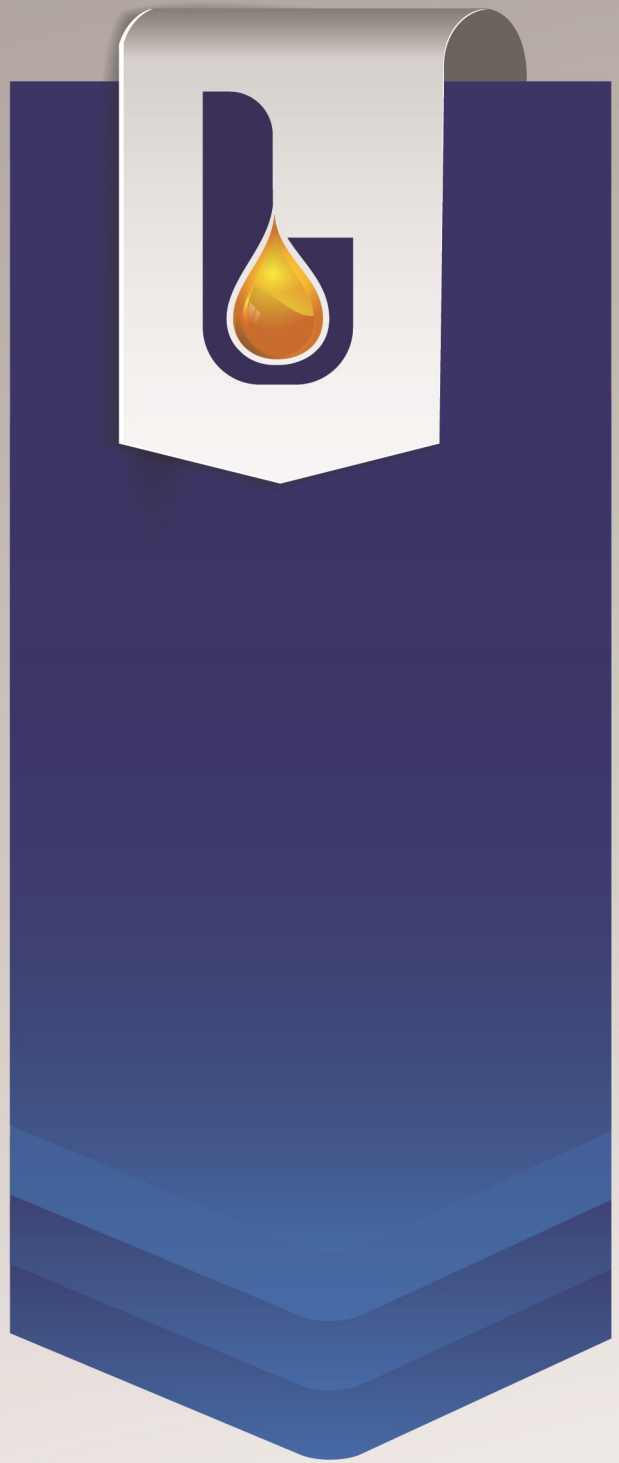
Approvals and Certificates

IRANOL OIL COMPANY, in line with its effective presence in domestic, regional and global markets, by processing and supplying various lubricants in accordance with international quality standards and utilizing modern knowledge and technologies, maintains consistent quality in its products and pursues continuous efforts to gain customer satisfaction. The establishment of an integrated management system and obtaining approvals from reputable global companies in the field of manufacturing equipment and parts for automotive oils (OEM), including gasoline, diesel and automotive gear oil, confirms this.

The most important activities of this collection in the above areas include:

- ☑ Two Star Appreciation Certificate from the National Organizational Excellence Award
- ☑ Two Star Appreciation Certificate from the Petrochemical Industry Excellence Award
- ☑ IATF 16949 Certification for Quality Management System in Automotive and Related Industries
- ☑ ISO 9001:2015 Quality Management System Certification
- ☑ ISO 14001:2015 Environmental Management System Certification
- ☑ ISO 45001 Safety and Health Certification
- ☑ ISO/TS 29001:2020 Management System Certification in the Oil, Gas and Petrochemical Industries
- ☑ ISO/IEC 17025:2017 Laboratory Management System Certification
- ☑ ZF and VOITH Germany Approvals for Automotive Gear Oils
- ☑ VOLVO Approvals for Diesel Engine Oils
- ☑ MAN Approvals for Diesel Engine Oils
- ☑ MTU Approvals for Diesel Engine Oils
- ☑ REACH Canada Approval for Green Process Oils EC/1907/2006
- ☑ Iran National Standard Certification for Engine and Industrial Oil
- ☑ BIU Germany and CIRS China Certification for Green Process Oils

Gasoline Engine Oils



Fully Synthetic Gasoline Engine Oil with Advanced Formulation

IRANOL SUPER SPORT is meticulosity formulated with premium, fully synthetic base oil and high-quality additives, engineered to deliver exceptional performance across a wide range of climatic conditions prevalent in Iran.

Performance Levels

- **API SP**
- **ILSAC GF-6A**
- **GM Dexos 1 ™ Gen2**
- **INSO 22261**

Applications

- Formulated to meet the most stringent API performance standards, this product is specifically designed for gasoline engines equipped with TGDI technology introduced in 2020 and beyond. It effectively mitigates Low Speed Pre-Ignition (LSPI) in turbocharged gasoline engines.

Advantages

- Advanced full synthetic formula helps prevent deposits and sludge build-up to enable long engine life.
- Superior lubrication for sever-duty applications and protection against wear, extending engine life.
- Excellent oxidation and thermal stability.
- Excellent reducing in level consumption.
- Extended emission control and catalyst protection.
- Protection of gasoline engine turbo charging system against LSPI phenomenon.

Typical physical characteristics

Characteristic	5W-30	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	10.5	D-445
Viscosity index (VI)	170	D-2270
Flash point, °C	225	D-92
Pour point, °C	-39	D-97
TBN, mg KOH/mg	8	D-2896
Density @ 15 °C, Kg/m^3	850	D-1298
CCS @ -30°C, cP	≤6600	D-5293

* Packaging

- 5L. Container Carton (4×5L)

Fully Synthetic Gasoline Engine Oil with Exceptional Performance

IRANOL RONIA PLUS is produced using a selected full synthetic base oil and the best additives for use in all seasons and climatic conditions in Iran.

Performance Levels

- **API SN PLUS**
- **GM Dexos 1 GEN 2**
- **ILSAC GF-5**
- **INSO 22261**

Applications

- This product, manufactured in accordance with one of the highest API performance levels, is designed for use in gasoline vehicles with TGDI engine technology and is suitable for models from 2014 onwards. It protects turbocharged gasoline engines by reducing the LSPI phenomenon.

Advantages

- Excellent cleaning properties and prevention of sludge and deposit formation due to an advanced formulation and the use of special additives, resulting in improved engine performance.
- Superior lubrication for sever-duty applications and protection against wear.
- Excellent reducing in level consumption.
- Extended emission control and catalyst protection.
- Protection of gasoline engine turbo charging system against LSPI phenomenon.

Typical physical characteristics

Characteristic	5W-30	5W-40	10W-40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	11	15	15	D-445
Viscosity index (VI)	160	165	150	D-2270
Flash point, °C	200	220	220	D-92
Pour point, °C	-33	-33	-33	D-97
TBN, mg KOH/mg	7.5	7.5	8	D-2896
Density @ 15 °C, Kg/m^3	850	852	858	D-1298
CCS, cP	@ -30°C ≤6600	@ -30°C ≤6600	@ -25°C ≤7000	D-5293

* Packaging

- 5L. Container Carton (4×5L)

Fully Synthetic Gasoline Engine Oil with Superior Performance

IRANOL SUPER RONIA is produced using a selected full synthetic base oil and exceptional additives for use in all seasons and climatic conditions in Iran.

Performance Levels

- **API SN**
- **RENAULT RN0700 & RN0710 Approved**
- **ACEA A3/B4-12**
- **INSO 22261**

Applications

- This product, designed to meet one of the highest API performance levels, is suitable for gasoline engines (manufactured from 2011 onward) when such standards are recommended by the vehicle manufacturer.
- API SN/RC, 0W-20 grade, designed for hybrid vehicles. This product is suitable for lubrication in new-generation hybrid and eco-friendly vehicles, as well as turbocharged engines that operate on gasoline or E85 ethanol-blended fuels.
- Suitable for vehicles equipped with Stop/Start technology.

Advantages

- Excellent cleaning properties and prevention of sludge and deposit formation due to an advanced formulation and the use of special additives, resulting in reduced consumption levels.
- Outstanding low temperature flow properties for startup and cold weather use.
- Excellent pollutant emission control and catalyst protection.

Typical physical characteristics

Characteristic	0W-20	5W-30	5W-40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	8	11.5	15	D-445
Viscosity index (VI)	160	160	160	D-2270
Flash point, °C	200	200	210	D-92
Pour point, °C	-42	-42	-36	D-97
TBN, mg KOH/mg	7	10	10	D-2896
Density @ 15 °C, Kg/m^3	850	855	860	D-1298
CCS, cP	@ -35°C ≤6200	@ -30°C ≤6600	@ -30°C ≤6600	D-5293

* Packaging

- 5L. Container Carton (4×5L)

Synthetic Gasoline Engine Oil with Excellent Performance

IRANOL RONIA is produced using a selected full synthetic base oil and premium additives for use in all seasons and climatic conditions in Iran.

Performance Levels

- **API SN**
- **ILSAC GF-5**
- **INSO 22261**

Applications

- This product, designed to meet one of the highest API performance levels, is suitable for gasoline engines (manufactured from 2011 onward) when such standards are recommended by the vehicle manufacturer.

Advantages

- Excellent cleaning properties and prevention of sludge and deposit formation due to an advanced formulation and the use of special additives, resulting in improved engine performance.
- Excellent lubrication and wear protection under sever driving condition.
- Excellent reducing in level consumption.

Typical physical characteristics

Characteristic	5W-30*	5W-40	10W-40	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	11	15	15	19	D-445
Viscosity index (VI)	165	170	150	130	D-2270
Flash point, °C	200	210	210	220	D-92
Pour point, °C	-42	-42	-33	-30	D-97
TBN, mg KOH/mg	8	8	8	7	D-2896
Density @ 15 °C, Kg/m^3	855	855	875	780	D-1298
CCS, cP	@ -30°C ≤6600	@ -30°C ≤6600	@ -25°C ≤7000	@ -15°C ≤9500	D-5293

* Fully Synthetic base oil

* Packaging

- 5L. Container Carton (4×5L)

Synthetic Gasoline Engine Oil with Reliable Performance

IRANOL SUPER ROYAL is produced using a selected full synthetic base oil and exclusive additives for use in all seasons and climatic conditions in Iran.

Performance Levels

- **API SM/CF**
- **ACEA A3/B3-04, A3/B4-04, A5/B5-04/C3-12**
- **MB p229.31, P229.51**
- **VW 502.00/505.00**
- **BMW Longlife-04**
- **Porsche A40**
- **Renault RN0700 / RN0710**
- **INSO 22261-22260**

Applications

- This product, designed to meet one of the highest API performance levels, is suitable for gasoline engines (manufactured from 2010 onward) when such standards are recommended by the vehicle manufacturer.

Advantages

- Excellent cleaning properties and prevention of harmful deposits caused by combustion and oxidation.
- Anti-wear characteristics to mitigate engine component abrasion.
- Excellent low-temperature lubrication, especially during startup.
- Maintaining oil viscosity throughout entire usage period.
- Excellent heat dissipation from engine components for the metallurgical structure of the parts.
- Significant reduction in fuel consumption and cost.

Typical physical characteristics

Characteristic	10W-30	5W-40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	10.5	15	D-445
Viscosity index (VI)	140	170	D-2270
Flash point, °C	205	210	D-92
Pour point, °C	-33	-36	D-97
TBN, mg KOH/mg	8	8	D-2896
Density @ 15 °C, Kg/m^3	860	860	D-1298
CCS, cP	@ -25 °C ≤7000	@ -30 °C ≤6600	D-5293

* Packaging

- 5L. Container Carton (4×5L)

Semi-Synthetic Gasoline Engine Oil with Dependable Performance

IRANOL ROYAL is produced using a selected semi synthetic base oil and proprietary additives for use in all seasons and climatic conditions in Iran.

Performance Levels

- **API SM/CF**
- **ACEA A3/B3-04, A3/B4-04, C3-08**
- **MB p229.31, p229.51**
- **VW 502.00 /505-00**
- **BMW Longlife-04**
- **INSO 22261-22260**

Applications

- This product, designed to meet one of the highest API performance levels, is suitable for gasoline engines (manufactured from 2010 onward) when such standards are recommended by the vehicle manufacturer.

Advantages

- Excellent oxidation and thermal stability.
- Excellent cleaning properties and prevention of harmful deposits caused by combustion and oxidation.
- Excellent detergency and neutralization of combustion to prevent deposits and corrosion of engine components.
- Excellent low-temperature lubrication, especially during startup.
- Anti-wear characteristics to mitigate engine component abrasion.

Typical physical characteristics

Characteristic	5W-40 *	10W-40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	15	D-445
Viscosity index (VI)	165	150	D-2270
Flash point, °C	210	210	D-92
Pour point, °C	-36	-33	D-97
TBN, mg KOH/mg	8	8	D-2896
Density @ 15 °C, Kg/m^3	870	870	D-1298
CCS, cP	@ -30°C ≤6600	@ -25°C ≤7000	D-5293

* Fully Synthetic base oil

* Packaging

- 1L. Container Carton (12×1L)
- 4L. Container Carton (4×4L)

Semi-Synthetic Gasoline Engine Oil with Enhanced Performance

IRANOL RACING is produced using a selected semi synthetic base oil and distinctive additives for use in all seasons and climatic conditions in Iran.

Performance Levels

- **API SL/CF**
- **ACEA A3-02, B3-98**
- **VW 500 /501/505**
- **INSO 22261-22260**

Applications

- This product is suitable for gasoline and supercharged diesel engines (manufactured from 2004 onward) when such standards are recommended by the vehicle manufacturer.

Advantages

- Excellent oxidation and thermal stability.
- Anti-wear characteristics to mitigate engine component abrasion.
- Significantly increases engine life and power.
- Excellent low-temperature lubrication, especially during startup.
- Maintaining oil viscosity during its entire service life.

Typical physical characteristics

Characteristic	10W-40	10W-50	10W-60	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	18	23.5	D-445
Viscosity index (VI)	150	160	170	D-2270
Flash point, °C	210	220	215	D-92
Pour point, °C	-33	-33	-36	D-97
TBN, mg KOH/mg	7.5	7.5	7	D-2896
Density @ 15 °C, Kg/m^3	870	870	870	D-1298
CCS, cP	@ -25°C ≤7000	@ -25°C ≤7000	@ -25°C ≤7000	D-5293

* Packaging

- 4L. Container Carton (4×4L)
- 4L. Container Carton (6×4L)
- 5L. Container Carton (6×5L)

High-Quality Gasoline Engine Oil

IRANOL 16000 is a high-quality lubricant produced from hydro finished paraffinic base oil, specially formulated with additives to meet the diverse climatic conditions of Iran.

Performance Levels

- **API SL/CF**
- **ACEA A3-02, B3-98**
- **MB 229.1**
- **VW 500/501/505**
- **INSO 22261-22260**

Applications

- This product is suitable for gasoline engines (manufactured from 2004 onward) when such standards are recommended by the vehicle manufacturer. The performance of this oil is determined by vehicle manufacturers based on the operating conditions of the vehicle.

Advantages

- Significantly increases engine life and power.
- Easy engine starting and quick oil delivery to parts for excellent lubrication at low temperature.
- Excellent ability to remove excess heat from the engine to maintain the metallurgical structure of the parts.
- Excellent control consumption and reduced cost.

Typical physical characteristics

Characteristic	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	19.5	D-445
Viscosity index (VI)	120	D-2270
Flash point, °C	220	D-92
Pour point, °C	-24	D-97
TBN, mg KOH/mg	7	D-2896
Density @ 15 °C, Kg/m^3	890	D-1298
CCS, cP	@ -15°C ≤9500	D-5293

* Packaging

- 4L. Container Carton (4×4L)
- 4L. Container Carton (6×4L)

Multi-Grade Engine Oil with Efficient Formulation

IRANOL 12000 is an efficient lubricant produced from hydro finished paraffinic base oil, specially formulated with great additives to meet the diverse climatic conditions of Iran. .

Performance Levels

- **API SJ/CF/CF-4**
- **ACEA A2-96, A3-98, B2-98**
- **MB 228.1, 229.1**
- **VW 500/501/505**
- **INSO 22261-22260**

Applications

- This product is suitable for gasoline (manufactured from 2001 onward) and super charged diesel engines when such standards are recommended by the vehicle manufacturer.

Advantages

- Anti-wear property for controlling engine component erosion, excellent control consumption and reduced cost.
- Easy engine starting and quick oil delivery to parts for excellent lubrication at low temperature.
- Excellent oxidation and thermal stability.
- Excellent shear stability of the product, which leads to maintaining viscosity throughout the entire use.

Typical physical characteristics

Characteristic	10W-40 *	15W-40	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15.5	15.5	19.5	D-445
Viscosity index (VI)	150	135	120	D-2270
Flash point, °C	210	210	220	D-92
Pour point, °C	-33	-27	-24	D-97
TBN, mg KOH/mg	6	6	6	D-2896
Density @ 15 °C, Kg/m^3	870	885	890	D-1298
CCS, cP	@-25° C ≤7000	@-20° C ≤7000	@-15° C ≤9500	D-5293

* Semi Synthetic base oil

* Packaging

- 4L. Container Carton (4×4L)

High-Performance Dual-Fuel Gasoline Engine Oil

IRANOL SABA is a desired performance lubricant produced from hydro finished paraffinic base oil, specially formulated with additives to meet the diverse climatic conditions of Iran.

Performance Levels

- **API SG/CD**
- **INSO 22261-22260**

Applications

- This product is suitable for use in light-duty gasoline or gas power when such standards are recommended by the vehicle manufacturer.

Advantages

- The use of hydrotreated base oil enhances thermal stability and resistance to oxidation.
- Excellent oxidation and thermal stability.
- Anti-wear property for controlling engine component erosion.
- Easy engine starting and quick oil delivery to parts for excellent lubrication at low temperature.
- Excellent cleaning properties and prevention of sludge and deposit formation resulting from combustion and oxidation

Typical physical characteristics

Characteristic	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	20	D-445
Viscosity index (VI)	120	D-2270
Flash point, °C	220	D-92
Pour point, °C	-24	D-97
TBN, mg KOH/mg	7	D-2896
Density @ 15 °C, Kg/m^3	890	D-1298
CCS, cP	@ -15°C ≤9500	D-5293

* Packaging

- 3.5L. Container Carton (6×3.5L)

High-quality multi-grade gasoline engine oil

IRANOL 8000 is a decent lubricant produced from hydro finished paraffinic base oil, specially formulated with great additives to meet the diverse climatic conditions of Iran.

Performance Levels

- **API SG/CD**
- **INSO 22261-22260**

Applications

- This product is suitable for gasoline (manufactured from 1993 onward) and super charged diesel engines when such standards are recommended by the vehicle manufacturer.

Advantages

- Excellent Anti-wear property for controlling engine component erosion that significantly increases engine life and power.
- Neutralizing properties of acids resulting from oxidation and combustion to prevent corrosion of engine parts.
- The use of hydrotreated base oil enhances thermal stability and resistance to oxidation.
- Excellent engine protection under various weather condition.
- Easy engine starting and quick oil delivery to parts for excellent lubrication at low temperature.
- Excellent control consumption and reduced cost.

Typical physical characteristics

Characteristic	10W-40 *	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	19	D-445
Viscosity index (VI)	150	120	D-2270
Flash point, °C	210	220	D-92
Pour point, °C	-33	-24	D-97
TBN, mg KOH/mg	5	5	D-2896
Density @ 15 °C, Kg/m^3	870	890	D-1298
CCS, cP	@ -25°C ≤7000	@ -15°C ≤9500	D-5293

*Semi Synthetic base oil

* Packaging

- 4L. Container Carton (6×4L)
- 4L. Container Carton (4×4L)

Single-grade and multi-grade gasoline engine oil with desirable performance

IRANOL 6000 is a lubricant produced from paraffinic base oil, specially formulated with suitable additives to meet the diverse climatic conditions of Iran.

➤ Performance Levels

- **API SF/CC**
- **INSO 22261-22260**

➤ Applications

- This product is suitable for gasoline engines manufactured from 1988 and diesel engines manufactured from 1961.
- Naturally aspirated light-duty gasoline and diesel engines when such standards are recommended by the vehicle manufacturer.

➤ Advantages

- Excellent oxidation and thermal stability.
- Excellent cleaning properties and prevention of sludge and deposit formation resulting from combustion and oxidation.
- Excellent Anti-wear property for controlling engine component erosion.
- Excellent engine protection under various weather condition.

➤ Typical physical characteristics

Characteristic	30	40	50	20W-40	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	12	15.5	20	15.5	19.5	D-445
Viscosity index (VI)	90	90	90	110	120	D-2270
Flash point, °C	225	235	240	220	220	D-92
Pour point, °C	-18	-12	-9	-24	-24	D-97
TBN, mg KOH/mg	4	4	4	4	4	D-2896
Density @ 15 °C, Kg/m^3	890	895	900	880	890	D-1298
CCS, cP	-	-	-	@ -15°C ≤9500	@ -15°C ≤9500	D-5293

* Packaging

- 1L. Container Carton (12×1L)
- 4L. Container Carton (4×4L)

Single-Grade and Multi-Grade Gasoline Engine Oil with Satisfactory Performance

IRANOL ALVAND is a lubricant produced from paraffinic base oil, specially formulated with suitable additives to meet the diverse climatic conditions of Iran.

Performance Levels

- **API SC/CC**
- **INSO 22261-22260**

Applications

- This product is suitable for naturally aspirated light-duty gasoline and diesel engines when such standards are recommended by the vehicle manufacturer.

Advantages

- Excellent oxidation and thermal stability.
- Excellent Anti-wear property for controlling engine component erosion.
- Excellent cleaning properties and prevention of sludge and deposit formation resulting from combustion and oxidation.
- Neutralizing properties of acids resulting from oxidation and combustion to prevent corrosion of engine parts

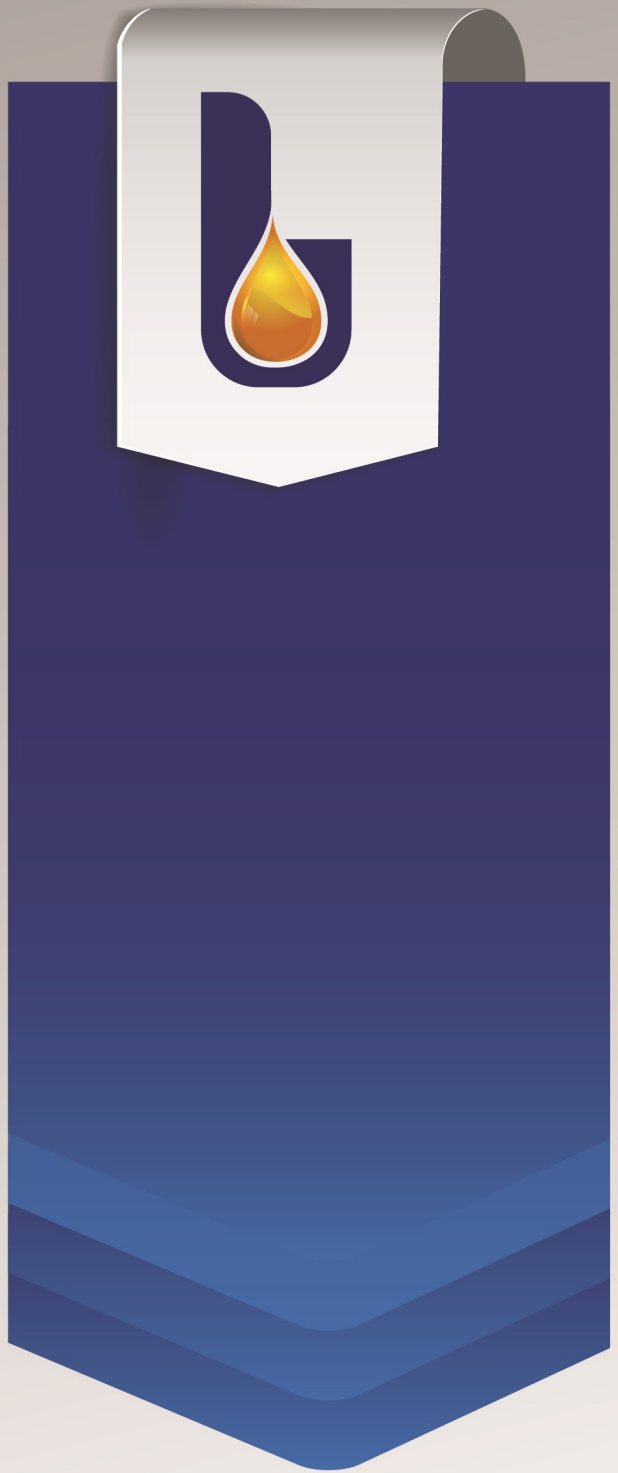
Typical physical characteristics

Characteristic	30	40	50	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	12	14	17.5	19.5	D-445
Viscosity index (VI)	85	85	85	120	D-2270
Flash point, °C	225	235	240	220	D-92
Pour point, °C	-18	-9	-9	-24	D-97
TBN, mg KOH/mg	2.5	2.5	2.5	4	D-2896
Density @ 15 °C, Kg/m^3	890	895	900	890	D-1298

* Packaging

- 4L. Container Carton (4×4L)
- Pail 20L.
- Drum 208L.

Four Stroke Motorcycles Oils



Motorcycle 4-Stroke Gasoline Engine Oil

IRANOL SUPER MOTOROW is a lubricant produced from synthetic base oil, specially formulated with premium additives to meet the diverse climatic conditions of Iran.

Performance Levels

- **API SN**
- **JASO MA 2**
- **INSO 22261**

Applications

- This product, formulated to meet JASO and API performance standards, is suitable for use in light and heavy four-stroke gasoline motorcycles by engine volume exceeding 180 CC and equipped with one or two cylinders.

Advantages

- Meets JASO MA 2 (Japanese Automotive Standards Organization) and API SN Standards for four stroke motorcycle with wet clutches.
- Utilizes Synthetic base oil for enhanced thermal stability properties.
- Neutralizes acids formed from oxidation and combustion to prevent corrosion of engine parts.
- Anti-slip clutch properties with a unique molecular structure that evenly fills the gaps between all clutch plates.
- Has the appropriate coefficient of friction to prevent slipping and premature wear of the clutch plate.
- Easy engine starting and rapid oil delivery to components for optimal lubrication at low temperature.

Typical physical characteristics

Characteristic	10W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	19	D-445
Viscosity index (VI)	160	D-2270
Flash point, °C	210	D-92
Pour point, °C	-30	D-97
TBN, mg KOH/mg	6	D-2896
Density @ 15 °C, Kg/m^3	870	D-1298
CCS, cP	@ -25°C ≤7000	D-5293

* Packaging

- 1300 CC. Container Carton(12×1300 CC)

Motorcycle 4-Stroke Gasoline Engine Oil

IRANOL MOTOROW is a lubricant produced from hydro finished paraffinic base oil, specially formulated with premium additives to meet the diverse climatic conditions of Iran.

Performance Levels

- **API SL**
- **JASO MA**
- **JASO MB (is for grade 10W-30)**
- **INSO 22261**

Applications

- This product, meeting API and JASO MA performance standards, is designed for use in non-automatic, four-stoke, gasoline-powered motorcycles with wet clutches.
- Grade SAE 10W-30, formulated to meet JASO MB and API performance standards, is suitable for use in four-stroke, gasoline scooter engines equipped with automatic clutch and transmission

Advantages

- Anti-slip clutch properties with a unique molecular structure that evenly fills the gaps between all clutch plates.
- Has the appropriate coefficient of friction to prevent slipping and premature wear of the clutch plate.
- Has friction modifier to reduce in fuel consumption. (For grade SAE 10W-30 with dry clutch)
- Neutralizes acids formed from oxidation and combustion to prevent corrosion of engine parts.
- Suitable for motorcycles equipped with stop/start technology.

Typical physical characteristics

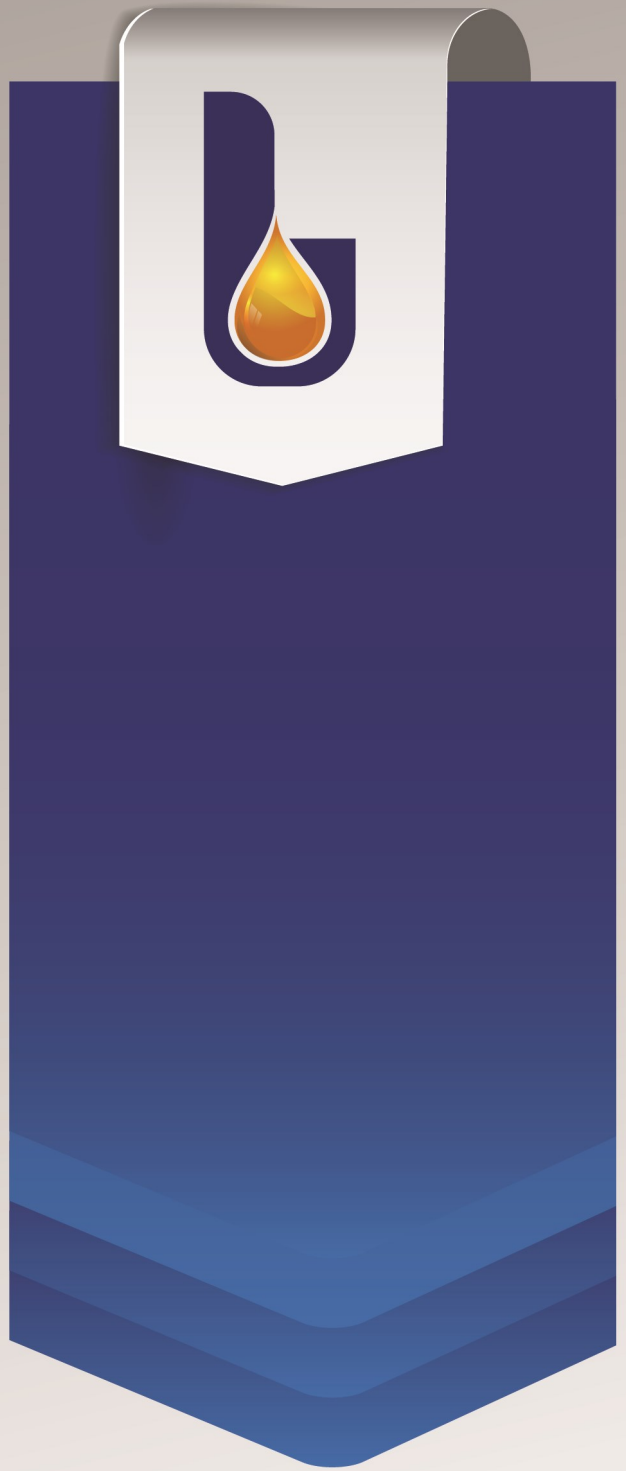
Characteristic	10W-30 *	10W-40	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	11.5	15	19.5	D-445
Viscosity index (VI)	140	150	120	D-2270
Flash point, °C	205	210	220	D-92
Pour point, °C	-30	-30	-24	D-97
TBN, mg KOH/mg	6	6	7	D-2896
Density @ 15 °C, Kg/m^3	860	870	880	D-1298
CCS, cP	@ -25°C ≤7000	@ -25°C ≤7000	@ -15°C ≤9500	D-5293

* Semi Synthetic base oil

* Packaging

- 1300 CC. Container Carton(12×1300 CC)
- 800 CC. Container Carton(12×800 CC)

Gas Engine Oil



Stationary Natural Gas Engine Oil

IRANOL GICX L.A GICX-LA is formulated with paraffinic base oil and suitable additives for use in stationary gas engines.

Performance Levels

- **API CF**

Applications

- Suitable for stationary gas engines.

Advantages

- Low sulfated ash content.
- Contains ashless dispersants that keep insoluble oxidation and wear products suspended in the oil, preventing the formation of deposits and increasing oil viscosity.
- Protects pistons and cylinders against wear and scuffing.

Typical physical characteristics

Characteristic	30	40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	12	15	D-445
Viscosity index (VI)	90	95	D-2270
Flash point, °C	225	250	D-92
Pour point, °C	-18	-12	D-97
TBN, mg KOH/mg	5	5	D-2896
Density @ 15 °C, Kg/m^3	890	890	D-1298
Sulfated Ash, wt%	≤0.45	≤0.45	D-874
Phosphorus content, ppm	200	200	D-6595

* This product can also be formulated with group II base oil.

* This product can be customized to meet MA grade with a medium sulfated ash level. (0.9 wt%)

* Packaging

- Drum 208L.

IRANOL CNG-BUS X is formulated with high-viscosity paraffinic base oil, hydrofining process, and premium additives for use in diesel gas engines in all seasons and weather conditions

Performance Levels

- **API CF-4**
- **Daimler MB 226.9**
- **MAN 3271**
- **VOLVO CNG**
- **RENAULT TRUCK RGD**
- **MIL-L-2104F**

Applications

- For use in all gas-powered engines fueled by CNG/LNG, such as city buses, and in cases where the above quality levels are recommended.

Advantages

- Medium sulfated ash content.
- High-performance engine oil specifically designed for CNG/LNG gas engines.
- Excellent resistance to oxidation and nitration, extending oil life.
- Excellent Anti-wear property for controlling engine component, reducing operating costs and increasing engine life.
- Excellent cleaning and dispersion, reducing soot and deposits on engine surface.

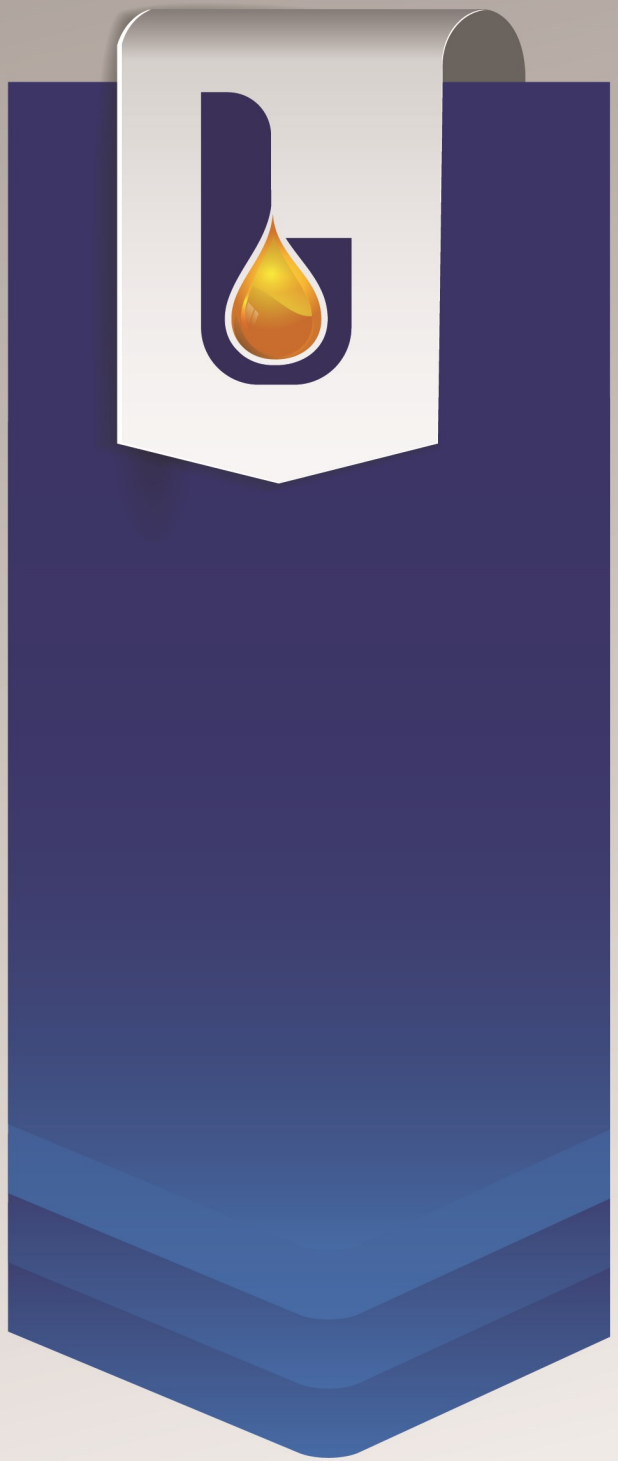
Typical physical characteristics

Characteristic	15W-40	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	19.5	D-445
Viscosity index (VI)	135	125	D-2270
Flash point, °C	210	220	D-92
Pour point, °C	-27	-27	D-97
TBN, mg KOH/mg	8	8	D-2896
Density @ 15 °C, Kg/m^3	880	885	D-1298
CCS, cP	@ -20°C ≤7000	@ -15°C ≤9500	D-5293

* Packaging

- Drum 208L.

Diesel Engine Oil



Ultra-High Performance Synthetic Diesel Engine Oil

IRANOL KAROW DIESEL is a top-performing diesel engine oil formulated with fully synthetic base oil and premium additives. It is designed for use in heavy-duty, modern diesel engines that comply with Euro 5 emission standards. This oil is suitable for seasons and climatic conditions in Iran

Performance Levels

- **API CK-4**
- **ACEA E-9**
- **VOLVO VDS-4.5**
- **MB 228.31**
- **MACK EOS-4.5**
- **MAN 3575**
- **INSO 22260**

Applications

- This product is suitable for use in heavy-duty, modern diesel vehicles such as various types of buses, trailers, tractors and light-duty trucks from 2017 onwards.

Advantages

- Excellent performance in engines equipped with advanced SCR and EGR technology for reducing specific pollutants.
- Low SAPS formulation for use with fuels containing up to 500 ppm sulfur.
- Utilizes the latest additives to provide the highest level of engine component protection.
- Exceptional oxidation and thermal stability.
- Strong detergency to reduce deposits from combustion and oxidation.
- Excellent low-temperature performance.

Typical physical characteristics

Characteristic	10W-30	10W-40	15W-40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	11.5	15	15	D-445
Viscosity index (VI)	140	150	140	D-2270
Flash point, °C	200	210	210	D-92
Pour point, °C	-30	-30	-30	D-97
TBN, mg KOH/mg	10	10	10	D-2896
Density @ 15 °C, Kg/m^3	855	860	870	D-1298
CCS, cP	@ -25°C ≤7000	@ -25°C ≤7000	@ -20°C ≤7000	D-5293

* Packaging

- Pail 20L.
- Drum 208 L.

High-Performance Synthetic Diesel Engine Oil

IRANOL POWER is a high-performance diesel engine oil formulated with semi synthetic base oil and high-quality additives. It is designed for use in the most advanced heavy-duty diesel engines. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CJ-4**
- **VOLVO VDS-4**
- **INSO 22260**

Applications

- This product is suitable for all supercharged and turbocharged diesel engines designed from 2007 with high performance and low emission technology for the environment. It is recommended for use in the most demanding operating conditions where premium quality levels are required.
- For use in heavy-duty vehicles, construction and mining equipment, agricultural machinery and heavy equipment.

Advantages

- Exceptional oxidation and thermal stability
- Maintains oil viscosity at high operating temperatures.
- Excellent anti-wear properties and prevents corrosion of engine parts.
- Long service life under harsh operating conditions.

Typical physical characteristics

Characteristic	10W-40	15W-40	20W-50 *	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	14.5	15	19	D-445
Viscosity index (VI)	150	140	125	D-2270
Flash point, °C	210	210	220	D-92
Pour point, °C	-30	-27	-24	D-97
TBN, mg KOH/mg	10	10	10	D-2896
Density @ 15 °C, Kg/m^3	855	860	875	D-1298
CCS, cP	@ -25°C ≤7000	@ -20°C ≤7000	@ -15°C ≤9500	D-5293

* Mineral base oils

* Packaging

- Pail 20L.
- Drum 208 L.

Advanced Performance Diesel Engine Oil

IRANOL EURO DIESEL is an advanced -performance diesel engine oil formulated with semi synthetic base oil and high-quality additives. It is designed for use in heavy-duty diesel engines that comply with Euro 5 and lower emission standards by color of blue. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CI-4/CH-4/SL**
- **ACEA E7-16**
- **VOLVO VDS-3**
- **MTU type 2**
- **MB 228.3**
- **MAN M 3275**
- **Mack EO-N**
- **INSO 22260**

Applications

- This product is suitable for use in heavy-duty, modern diesel vehicles such as various types of buses, trailers, tractors and light-duty trucks meeting Euro 5 or lower emission standards.

Advantages

- Excellent performance in engines equipped with advanced SCR and EGR technology for reducing specific pollutants.
- Exceptional oxidation and thermal stability.
- Strong soot-cleaning ability to reduce combustion and oxidation deposits.
- Excellent anti-wear properties and prevents corrosion of engine parts.
- Neutralizing properties of acids resulting from oxidation and combustion to prevent corrosion of engine parts.

Typical physical characteristics

Characteristic	10W-40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	D-445
Viscosity index (VI)	150	D-2270
Flash point, °C	210	D-92
Pour point, °C	-33	D-97
TBN, mg KOH/mg	12	D-2896
Density @ 15 °C, Kg/m^3	860	D-1298
CCS, cP	@ -25°C ≤7000	D-5293

* Packaging

- Pail 20L.
- Drum 208 L.

Advanced High-Performance Synthetic Diesel Oil

IRANOL TOP ENGINE E5 is an advanced -performance diesel engine oil formulated with semi synthetic base oil and high-quality additives. It is designed for use in heavy-duty diesel engines that comply with Euro 5 and lower emission standards. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CI-4 PLUS**
- **CUMMINS CES 20077/20078**
- **ACEA E7-16**
- **MB 228.31**
- **VOLVO VDS-4**
- **MAN M 3275**
- **INSO 22260**

Applications

- This product is suitable for use in heavy-duty, modern diesel vehicles such as various types of buses, trailers, tractors and light-duty trucks meeting Euro 5 or lower emission standards.

Advantages

- Excellent performance in engines equipped with advanced SCR and EGR technology for reducing specific pollutants.
- Exceptional oxidation and thermal stability.
- Strong soot-cleaning ability to reduce combustion and oxidation deposits.
- Excellent anti-wear properties and prevents corrosion of engine parts.
- Neutralizing properties of acids resulting from oxidation and combustion to prevent corrosion of engine parts.

Typical physical characteristics

Characteristic	10W-40	15W-40	20W-50 *	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	15.5	19.5	D-445
Viscosity index (VI)	150	140	125	D-2270
Flash point, °C	215	215	220	D-92
Pour point, °C	-33	-27	-27	D-97
TBN, mg KOH/mg	10	10	10	D-2896
Density @ 15 °C, Kg/m^3	865	875	890	D-1298
CCS, cP	@ -25°C ≤7000	@ -20°C ≤7000	@ -15°C ≤9500	D-5293

* Mineral base oils

* Packaging

- Pail 20L.
- Drum 208 L.

Modern Performance Diesel Engine Oil

IRANOL TOP ENGINE is a diesel engine oil formulated with selected base oil and high-quality additives. It is designed for use in the newest heavy-duty diesel engines. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CI-4/ CF/ SL**
- **VOLVO VDS-3**
- **MAN 3275**
- **ACEA A3/ B3/ B4/ E7**
- **MB p228.3**
- **INSO 22260-22261**

Applications

- Designed for use in all diesel engine systems and turbochargers developed after 2007, providing high efficiency and advanced emission control technology.
- Suitable for environments where high-quality grades are required.
- Used in equipment related to transportation, construction, mining, agriculture, and light machinery.

Advantages

- Exceptional oxidation and thermal stability.
- Maintains oil viscosity t high operating temperature.
- Excellent cleaning and suspension properties reduce soot and sludge in the engine.
- Long lifespan under harsh working conditions.
- Outstanding fluidity at low temperatures for easy startup, especially during short drives.

Typical physical characteristics

Characteristic	10W-40 *	15W-40	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	15.5	19.5	D-445
Viscosity index (VI)	150	140	125	D-2270
Flash point, °C	215	215	220	D-92
Pour point, °C	-30	-27	-27	D-97
TBN, mg KOH/mg	12	12	12	D-2896
Density @ 15 °C, Kg/m^3	870	875	885	D-1298
CCS, cP	@ -25°C ≤7000	@ -20°C ≤7000	@ -15°C ≤7000	D-5293

* Semi Synthetic base oil

* Packaging

- Pail 20L.
- Drum 208 L.

Special Performance Diesel Engine Oil

IRANOL D-40000 M III is a diesel engine oil formulated with semi synthetic base oil and high-quality additives. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CI-4**
- **MTU OIL Type 3**
- **MAN 3277**
- **ACEA E4-08, E7-08**
- **MB 228.5**
- **Volvo VDS-3**
- **INSO 22260**

Applications

- Suitable for use in light and heavy-duty diesel engines, as well as diesel and turbo-diesel vehicles.
- Recommended for use in all MTU diesel engines.

Advantages

- High alkalinity to prevent the adverse effects of acids produced by fuel combustion.
- Possesses anti-wear properties and prevents corrosion of engine components.
- High thermal stability and resistance to oxidation.
- Excellent lubrication of bearings at low starting temperatures, especially during short-distance driving.
- Cleaning and dispersing properties, reducing soot and deposits.

Typical physical characteristics

Characteristic	10W-40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	14	D-445
Viscosity index (VI)	145	D-2270
Flash point, °C	210	D-92
Pour point, °C	-30	D-97
TBN, mg KOH/mg	12	D-2896
Density @ 15 °C, Kg/m^3	870	D-1298
CCS, cP	@ -25°C ≤7000	D-5293

* Packaging

- Drum 208 L.

Optimal Performance Diesel Engine Oil

IRANOL D-17000 PLUS is produced using a paraffinic base oil with a high viscosity index and hydro finishing process, as well as high-quality additives. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CH-4**
- **VOLVO VDS-2**
- **MAN 3275**
- **MB 228.3**
- **INSO 22260**

Applications

- Suitable for use in all four-stroke, supercharged and turbocharged diesel engines when such standards are recommended by the vehicle manufacturer.
- Used in road construction, construction, mining and agricultural equipment and heavy machinery.

Advantages

- Possesses anti-wear properties and prevents corrosion of engine components.
- The High alkalinity, which prevents the adverse effects of acids produced by fuel combustion.
- High thermal stability and resistance to oxidation
- Maintains oil viscosity at high operating temperature
- Reduces fuel consumption.

Typical physical characteristics

Characteristic	15W-40	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15.5	19.5	D-445
Viscosity index (VI)	140	125	D-2270
Flash point, °C	210	220	D-92
Pour point, °C	-27	-27	D-97
TBN, mg KOH/mg	10	10	D-2896
Density @ 15 °C, Kg/m^3	875	885	D-1298
CCS, cP	@ -20°C ≤7000	@ -15°C ≤9500	D-5293

* Packaging

- Pail 20L.
- Drum 208L.

High-Performance Diesel Engine Oil

IRANOL D-9000 PLUS is produced using a paraffinic base oil with a high viscosity index and hydro finishing process, as well as adequate additives. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CF-4/CF**
- **VOLVO VDS (is for multi grades)**
- **ACEA E2-96 (is for multi grades)**
- **ACEA E3 (is for 10W)**
- **MB 228.1**
- **MAN 270/271**
- **INSO 22260**

Applications

- Suitable for use in all four-stroke, supercharged and turbocharged diesel engines when such standards are recommended by the vehicle manufacturer.
- Used in road construction, construction, mining and agricultural equipment and heavy machinery.

Advantages

- Possesses anti-wear properties and prevents corrosion of engine components.
- Suitable for use in marine diesel engines by high speed.
- Cleaning and dispersing properties, reducing soot and deposits.
- High thermal stability and resistance to oxidation.
- Reduces fuel consumption and Suitable for all seasons.

Typical physical characteristics

Characteristic	10W *	15W-40	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	6.5	15.5	19.5	D-445
Viscosity index (VI)	100	135	125	D-2270
Flash point, °C	195	210	220	D-92
Pour point, °C	-30	-27	-24	D-97
TBN, mg KOH/mg	10	10	10	D-2896
Density @ 15 °C, Kg/m^3	880	885	890	D-1298
CCS, cP	@ -25°C ≤7000	@ -20°C ≤7000	@ -15°C ≤9500	D-5293

* This grade of product with Alison C-4 quality level, is exclusively used as hydraulic oil in construction machinery and similar applications.

* Packaging

- Pail 20L.
- Drum 208L.

High-Performance Diesel Engine Oil

IRANOL D-7000- SPECIAL is produced using a paraffinic base oil with a high viscosity index and hydro finishing process, as well as sufficient additives. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CF**
- **INSO 22260**

Applications

- Suitable for use in all four-stroke, supercharged and turbocharged diesel engines when such standards are recommended by the vehicle manufacturer.
- Used in road construction, construction, mining and agricultural equipment.

Advantages

- Diesel engine oil with superior performance.
- Possesses anti-wear properties and prevents corrosion of engine components.
- Suitable for use in marine diesel engines
- Excellent lubrication of bearings at low starting temperatures and reduction of deposit formation at low temperatures, especially during short-distance driving.
- Reduces fuel consumption.

Typical physical characteristics

Characteristic	30	40	50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	12	15.5	20	D-445
Viscosity index (VI)	90	90	95	D-2270
Flash point, °C	225	235	240	D-92
Pour point, °C	-18	-15	-12	D-97
TBN, mg KOH/mg	7	7	7	D-2896
Density @ 15 °C, Kg/m^3	890	895	905	D-1298

* Packaging

- Pail 20L.
- Drum 208L.

High-Performance Diesel Engine Oil

IRANOL VESTA is produced using a paraffinic base oil with a high viscosity index and hydro finishing process, as well as adequate additives. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CF/SF**
- **INSO 22260**

Applications

- Suitable for use in all four-stroke, supercharged and turbocharged diesel engines when such standards are recommended by the vehicle manufacturer.
- Used in road construction, construction, mining and agricultural equipment and heavy machinery.

Advantages

- Possesses anti-wear properties and prevents corrosion of engine components.
- High thermal stability and resistance to oxidation.
- Maintains oil viscosity at high operating temperature.
- Suitable for use in marine diesel engines.

Typical physical characteristics

Characteristic	40	50	15W-40	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15.5	20	15.5	20	D-445
Viscosity index (VI)	95	95	135	125	D-2270
Flash point, °C	235	240	210	220	D-92
Pour point, °C	-24	-24	-27	-24	D-97
TBN, mg KOH/mg	8	8	8	8	D-2896
Density @ 15 °C, Kg/m^3	895	900	885	890	D-1298
CCS, cP	-	-	@ -20°C ≤7000	@ -15°C ≤9500	D-5293

* Packaging

- 5L. Container Carton(6×5L)

Efficient Diesel Engine Oil

IRANOL SPECIAL SOUMA is produced using a paraffinic base oil with a high viscosity index and hydro finishing process, as well as grate additives. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CG-4**
- **INSO 22260**

Applications

- Designed for use in advanced high-speed diesel engines with modern turbochargers, as well as four-stroke diesel engines manufactured from 1995 onwards.
- Used in heavy-duty and medium-duty diesel engines.
- Used in road construction, construction, mining and agricultural equipment and heavy machinery.

Advantages

- Suitable for diesel engines by high performance.
- Possesses anti-wear properties and prevents corrosion of engine components.
- Cleaning and dispersing properties, reducing soot and deposits.
- The High alkalinity, which prevents the adverse effects of acids produced by fuel combustion.
- High thermal stability and resistance to oxidation.

Typical physical characteristics

Characteristic	25W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	19.5	D-445
Viscosity index (VI)	110	D-2270
Flash point, °C	230	D-92
Pour point, °C	-21	D-97
TBN, mg KOH/mg	11	D-2896
Density @ 15 °C, Kg/m^3	890	D-1298
CCS, cP	@ -10°C ≤13000	D-5293

* Packaging

- Pail 20L.
- Drum 208L.

High-Quality Diesel Engine Oil

IRANOL SOUMA is produced using a paraffinic base oil with a high viscosity index and hydro finishing process, as well as satisfactory additives. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CD/SF**
- **INSO 22260/ 22261**

Applications

- Used in road construction, construction, mining and agricultural equipment.
- Suitable for use in light and heavy-duty diesel engines.

Advantages

- Possesses anti-wear properties and prevents corrosion of engine components.
- Cleaning and dispersing properties, reducing soot and deposits.
- The High alkalinity, which prevents the adverse effects of acids produced by fuel combustion. oil viscosity at high operating temperatures.
- No oil pressure drops.

Typical physical characteristics

Characteristic	25W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	19	D-445
Viscosity index (VI)	100	D-2270
Flash point, °C	220	D-92
Pour point, °C	-21	D-97
TBN, mg KOH/mg	11	D-2896
Density @ 15 °C, Kg/m^3	890	D-1298
CCS, cP	@ -10°C ≤13000	D-5293

* Packaging

- Pail 20L.
- Drum 208L.

Reliable Diesel Engine Oil

IRANOL D-7000 is produced using a paraffinic base oil and suitable additives. This oil is suitable for seasons and climatic conditions in Iran.

Performance Levels

- **API CD/SE**
- **Allison C-3 (is for 10W)**
- **Caterpillar TO-2 (is for 10W)**
- **INSO 22260-22261**

Applications

- For use in supercharged diesel engines where these quality levels are recommended.
- Suitable for use in light and heavy machinery, as well as stationary diesel engines.
- Suitable for use in construction machinery and equipment uses in mining and agriculture.

Advantages

- Possesses anti-wear properties and prevents corrosion of engine components.
- High thermal stability and resistance to oxidation.
- Cleaning and dispersing properties, reducing soot and deposits Suitable for use in marine diesel engines by high speed.

Typical physical characteristics

Characteristic	10W *	30	40	50	60	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	6.5	12	15.5	20	25	19.5	D-445
Viscosity index (VI)	90	90	95	95	95	120	D-2270
Flash point, °C	205	225	235	240	240	220	D-92
Pour point, °C	-30	-18	-15	-9	-9	-24	D-97
TBN, mg KOH/mg	7	7	7	7	7	7	D-2896
Density @ 15 °C, Kg/m^3	880	890	895	900	905	890	D-1298
CCS, cP	@ -25°C ≤7000	-	-	-	-	@ -15°C ≤9500	D-5293

* This grade of product with Alison C-3 quality level, is exclusively used as hydraulic oil in construction machinery, hydrostatic pumps and similar applications.

* Packaging

- Pail 20L.
- Drum 208L.

Good Quality Diesel Engine Oil

IRANOL VD-5000 is produced using a paraffinic base oil and suitable additives. This oil is designed for use in stationary diesel generator sets.

Performance Levels

- **API CD**
- **INSO 22260**

Applications

- Specifically formulated for use in in stationary diesel generator sets where these quality levels are recommended.
- Suitable for use in machinery that operates on heavy fuel oils.

Advantages

- The High alkalinity, which prevents the adverse effects of acids produced by fuel combustion by high sulfur percentage and consequently extend oil life.
- High thermal stability and resistance to oxidation.
- Possesses anti-wear properties and prevents corrosion of engine components.
- Cleaning and dispersing properties, reducing soot and deposits.

Typical physical characteristics

Characteristic	40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15.5	D-445
Viscosity index (VI)	90	D-2270
Flash point, °C	240	D-92
Pour point, °C	-12	D-97
TBN, mg KOH/mg	25	D-2896
Density @ 15 °C, Kg/m^3	900	D-1298

* Other grades can be produced upon request.

* Packaging

- Drum 208L.

Locomotive Diesel Engine Oil

IRANOL EMD is produced using a paraffinic base oil and suitable additives. This oil is designed for use in railway locomotives.

Performance Levels

- **GMC/GE Generation 4 long life**

Applications

- Suitable for use in locomotives equipped with bearings made of silver alloy, where lubricants containing zinc compounds should be avoided

Advantages

- Zinc-free, compatible with silver alloy bearings.
- Prevent oxidation, sludge, and soot formation
- Reduce oil consumption, costs, and maintenance time for oil changes.
- The High alkalinity for compatibility with high sulfur content fuels.

Typical physical characteristics

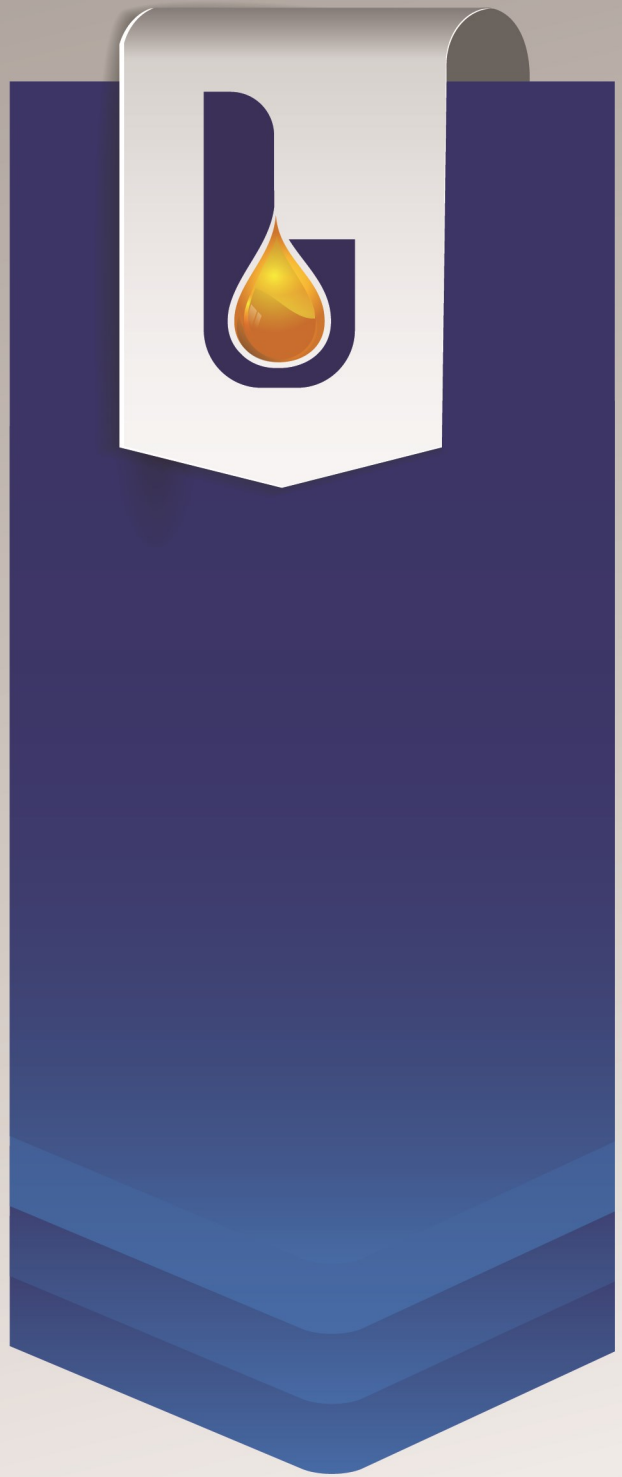
Characteristic	40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	D-445
Viscosity index (VI)	95	D-2270
Flash point, °C	225	D-92
Pour point, °C	-6	D-97
TBN, mg KOH/mg	17	D-2896
Density @ 15 °C, Kg/m^3	890	D-1298

* Other grades can be produced upon request.

* Packaging

- Drum 208L.

Marine Engine Oil



IRANOL SPINEL is produced using paraffinic base oil derived from the refining of crude oil fraction as well as special additives.

Performance Levels

- **Wartsila (Sulzer)**
- **GMT**
- **MAN B&W**

Applications

- For use in low-speed crosshead marine diesel engines.
- Suitable for engines ultra-low sulfur fuels with a sulfur content of less than 2% by weight.
- Suitable for operation under harsh conditions, high pressure, and low temperatures with low deposition rate.

Advantages

- High performance marine diesel engine oil.
- Possesses anti-wear properties and prevents corrosion of engine components.
- Detergency and dispersion to reduce sludge and deposit formation.
- Anti-oxidation and thermal stability to extend oil life.

Typical physical characteristics

Characteristic	50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	20	D-445
Viscosity index (VI)	100	D-2270
Flash point, °C	240	D-92
Pour point, °C	-6	D-97
TBN, mg KOH/mg	40	D-2896
Density @ 15 °C, Kg/m^3	900	D-1298

* Packaging

- Drum 208L.

Specialized Marine Two-Stroke Diesel Engine Oil

IRANOL OSCAR S6 is produced using paraffinic base oil derived from the refining of crude oil fraction and the best additives.

Applications

- Recommended for use in low-speed, two-stroke marine diesel engine cylinders.
- For use in engines with fuels containing more than 1% sulfur.
- Suitable for operation under harsh conditions, high pressure, and low temperatures with low deposit levels.

Advantages

- High performance marine diesel engine oil.
- Possesses anti-wear properties and prevents corrosion of engine components.
- Detergency and dispersion to reduce sludge and deposit formation.
- High oxidation resistance, good thermal stability, and increased oil lifespan.

Typical physical characteristics

Characteristic	40	50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	20	D-445
Viscosity index (VI)	95	95	D-2270
Flash point, °C	205	210	D-92
Pour point, °C	-18	-6	D-97
TBN, mg KOH/mg	100	100	D-2896
Density @ 15 °C, Kg/m^3	940	950	D-1298

* Packaging

- Drum 208L.

Marine Two-Stroke Diesel Engine Oil

IRANOL MATISA is produced using paraffinic base oil derived from the refining of crude oil fraction and special additives.

Performance Levels

- **API CD**

Applications

- Used as a system oil in low-speed, two-stroke crosshead marine diesel engines.
- Main and auxiliary trunk piston diesel engines that use distillate fuels.
- For use in turbochargers and power transmission systems.

Advantages

- High oxidation stability and excellent detergency.
- Suitable alkalinity and water separation properties.
- Excellent corrosion resistance

Typical physical characteristics

Characteristic	30	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	12	D-445
Viscosity index (VI)	102	D-2270
Flash point, °C	225	D-92
Pour point, °C	-18	D-97
TBN, mg KOH/mg	8	D-2896
Density @ 15 °C, Kg/m^3	900	D-1298

* Packaging

- Drum 208L.

Marine Four-Stroke Diesel Engine Oil

IRANOL CORAL is produced using paraffinic base oil derived from the refining of crude oil fraction and suitable additives.

Performance Levels

- **API CF**

Applications

- High speed, four-stroke marine diesel engines using diesel fuels with less than 1% sulfur by weight.
- Small, high-speed marine diesel engines operating under severe conditions.
- Used in sever operating condition with low deposit levels to reduce ring sticking and breakage.
- Used in turbochargers and power transmissions.

Advantages

- Excellent anti-wear and corrosion protection for engine component.
- Excellent detergency and dispersions, reducing soot and deposits from the engine surface.
- Excellent oxidation resistance and thermal stability, extending oil life.

Typical physical characteristics

Characteristic	30	40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	12	15	D-445
Viscosity index (VI)	100	100	D-2270
Flash point, °C	225	235	D-92
Pour point, °C	-18	-18	D-97
TBN, mg KOH/mg	12	12	D-2896
Density @ 15 °C, Kg/m^3	890	895	D-1298

* Packaging

- Drum 208L.

Marine Four-Stroke Diesel Engine Oil

IRANOL TOUKA is produced using paraffinic base oil derived from the refining of crude oil fraction and adequate additives.

Performance Levels

- **API CF**

Applications

- All medium speed, four-stroke marine diesel engines using heavy fuels with high sulfur content. (More than 3% sulfur by weight.)

Advantages

- Excellent engine cleaning properties.
- High capacity for neutralizing acids formed during combustion.
- High thermal stability.
- Excellent oxidation resistance.

Typical physical characteristics

Characteristic	30	40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	12	14	D-445
Viscosity index (VI)	100	100	D-2270
Flash point, °C	210	210	D-92
Pour point, °C	-18	-18	D-97
TBN, mg KOH/mg	40	40	D-2896
Density @ 15 °C, Kg/m^3	905	900	D-1298

* This product can also be produced in grade 20.

* Packaging

- Drum 208L.

Marine Four-Stroke Diesel Engine Oil

IRANOL LENJ II is produced using paraffinic base oil derived from the refining of crude oil fraction and grate additives.

Performance Levels

- **API CF-4/SG**
- **ACEA E2-96**
- **Allison C3**
- **MB 228.0/1**
- **VOLVO VDS**
- **MTU**
- **INSO 22260-22261**

Applications

- Four-stroke marine diesel engines with supercharging and turbocharging, and in cases where the above-mentioned quality levels are recommended.
- For use in marine engines under normal operating conditions with sediment-forming fuels.
- For use in cooling system, pistons, and crankshafts in low-speed marine engines.

Advantages

- Possesses anti-wear properties and prevents corrosion of engine components.
- Detergency and dispersion to reduce sludge and deposit formation.
- High oxidation resistance, good thermal stability, and increased oil lifespan.

Typical physical characteristics

Characteristic	30	40	50	20W-50	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	12	15	20	19	D-445
Viscosity index (VI)	90	90	90	125	D-2270
Flash point, °C	215	235	240	220	D-92
Pour point, °C	-9	-9	-9	-24	D-97
TBN, mg KOH/mg	15	15	15	15	D-2896
Density @ 15 °C, Kg/m^3	890	895	900	890	D-1298
CCS, cP	-	-	-	@ -15°C ≤9500	D-5293

* Packaging

- Pail 20L.
- Drum 208L.

Marine Four-Stroke Diesel Engine Oil

IRANOL FIGHTER is produced using paraffinic base oil derived from the refining of crude oil fraction and suitable additives.

Performance Levels

- **API CF**

Applications

- All medium speed, four-stroke marine diesel engines using heavy fuels with high sulfur content. (More than 3% sulfur by weight.)

Advantages

- Excellent oxidation resistance.
- Excellent engine cleaning properties.
- High capacity for neutralizing acids formed during combustion.
- High thermal stability.

Typical physical characteristics

Characteristic	30	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	12	D-445
Viscosity index (VI)	100	D-2270
Flash point, °C	215	D-92
Pour point, °C	-18	D-97
TBN, mg KOH/mg	30	D-2896
Density @ 15 °C, Kg/m^3	900	D-1298

* Packaging

- Drum 208L.

Marine Four-Stroke Diesel Engine Oil

IRANOL KAYER is produced using paraffinic base oil derived from the refining of crude oil fraction and excellent additives.

Performance Levels

- **API CF**

Applications

- All marine diesel engines using diesel fuels with a sulfur content of less than 1% by weight.
- Designed for diesel engines where monograde oil is recommended.

Advantages

- Excellent engine cleaning properties resulting in less wear and longer life of parts.
- High thermal stability and resistance to oxidation.

Typical physical characteristics

Characteristic	40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	D-445
Viscosity index (VI)	100	D-2270
Flash point, °C	235	D-92
Pour point, °C	-15	D-97
TBN, mg KOH/mg	15	D-2896
Density @ 15 °C, Kg/m^3	895	D-1298

* Packaging

- Drum 208L.

Two-Stroke Diesel Engine Oil

IRANOL HENZA 2 is produced using paraffinic base oil derived from the fractional distillation of crude oil, combined with top-tier ashless additives soluble in kerosene

Performance Levels

- **NMMA TC-W3**

Applications

- Suitable for use in two-stroke water-cooled marine diesel engines, such as high-speed vessels and motorboats.
- Used in fuel injection systems with oil premix.

Advantages

- Provide high lubrication and protection to the engine while maintaining fluidity at various temperatures.
- Excellent anti-wear, anti-corrosion, and anti-rust properties for engine components.
- Low sulfated ash content to prevent deposit formation and inhibit piston, bearing, and ring wear.
- Easy and stable mixing with fuel, even at low ambient temperatures.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	7.5	D-445
Viscosity index (VI)	120	D-2270
Flash point, °C	106	D-92
Pour point, °C	-30	D-97
Sulfated Ash, %	≤0.005	D-874
Density @ 15 °C, Kg/m^3	875	D-1298
CCS, cP	@ -25°C ≤7500	D-4682

* This product can also be produced specifically for four-stroke marine engines.

How to use:

Mixing ratio of fuel to oil:

Kerosene	Iranol Henza 2
30	1
Gasoline	**Iranol Henza 2**
50	1

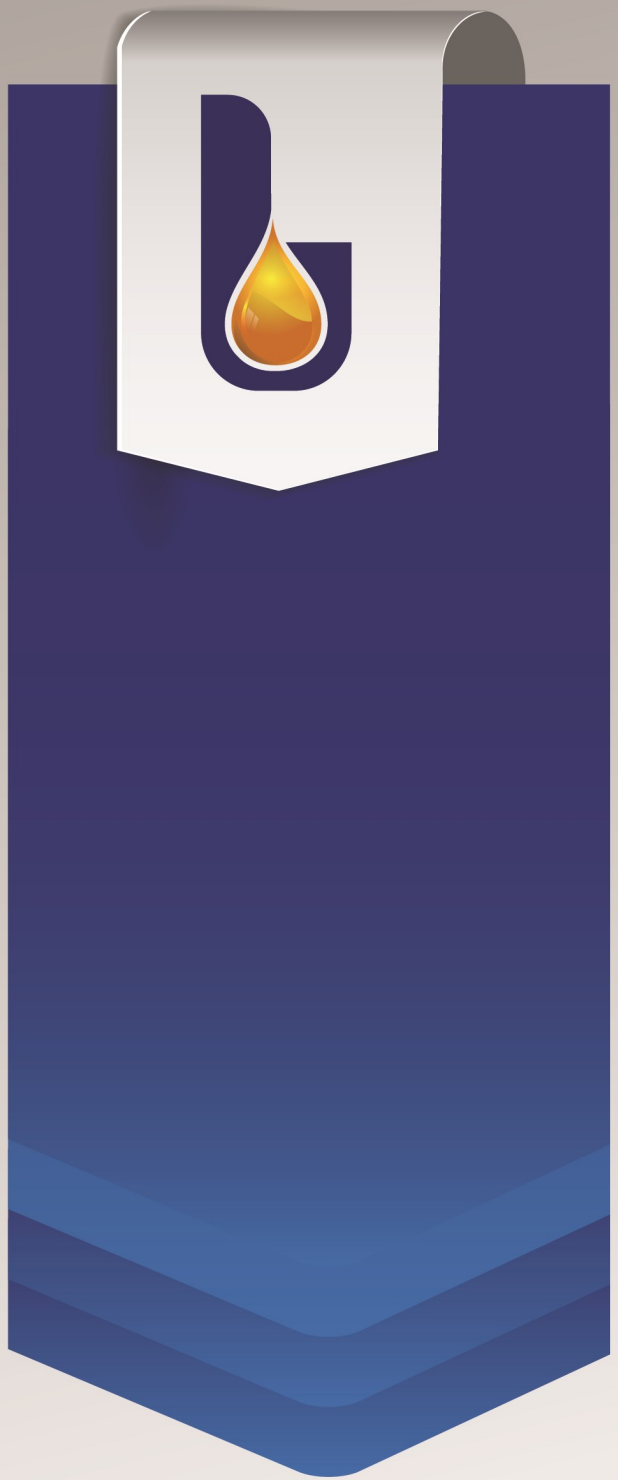
Storage instructions:

Store at a maximum temperature of 30 °C.

* Packaging

- 1L. Container Carton
- Drum 208L.

Driveline Fluid Oil



IRANOL ATF-VI is formulated using fully synthetic base oil with low viscosity and advanced additive technology to provide superior power transmission and anti-wear protection.

Performance Levels

- **DEXRON VI**
- **JASO Class 1-A**
- **Ford M-LV/M-SP**
- **Toyota WS**
- **Hyundai SP-IV**
- **Nissan Matic S**
- **Honda D-W1**

Applications

- This product is designed for use in 6-speed automatic transmissions meeting DEXRON VI specifications.

Advantages

- Very low viscosity.
- Exceptional anti-wear and anti-shudder performance.
- Smooth shifting without vibration or shudder.
- Contributes to improved fuel economy.
- Excellent oxidation resistance and thermal stability.
- Enhanced anti-friction properties for reduced shift shock.
- Excellent fluidity at low temperatures for easy shifting in cold weather.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	6.4	D-445
Viscosity index (VI)	145	D-2270
Flash point, °C	180	D-92
Pour point, °C	-45	D-97
Density @ 15 °C, Kg/m^3	840	D-1298
Brookfield viscosity, cP	@ -40°C ≤15000	D-2983

* Packaging

- 1L. Container Carton(12×1L)

IRANOL ATF-DCT is formulated using fully synthetic base oil and special additives with advanced technology.

Performance Levels

- **VW (Audi, Seat, Skoda) 6-speed**
- **Renault EDC 6-speed**
- **Chrysler Power shift 6-speed**
- **Ford Power shift 6-speed**
- **Mitsubishi TC-SST 6-speed**
- **Peugeot / Citroen DCS 6-speed**
- **Volvo Power shift 6-speed**
- **Bugatti Veyron**

Applications

- This product is designed for use in passenger cars with 6-speed dual-clutch (DCT) automatic transmissions.

Advantages

- Exceptional anti-wear and anti-shudder performance.
- Smooth shifting with no vibration or shudder.
- Contributes to improved fuel economy.
- Excellent oxidation resistance and thermal stability.
- Excellent fluidity at low temperatures for easy shifting in cold weather.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	6.5	D-445
Viscosity index (VI)	175	D-2270
Flash point, °C	210	D-92
Pour point, °C	-45	D-97
Density @ 15 °C, Kg/m^3	840	D-1298
Brookfield viscosity, cP	@ -40°C ≤15000	D-2983

* Packaging

- 1L. Container Carton(12×1L)

IRANOL ATF-CVT is formulated using fully synthetic base oil and special additives with enhanced anti-wear properties and superior anti-shudder characteristics for better protection of the gearbox.

Performance Levels

- **JASO M315-1A**
- **NISSAN NS-2**
- **TOYOTA TC**

Applications

- This product is suitable for use in continuously variable speed (CVT) automatic transmission.

Advantages

- Smooth and shudder-free shifting.
- Long service life, resulting in reduced oil consumption costs.
- Excellent oxidation resistance under high temperature conditions.
- Excellent fluidity at low temperatures for easy shifting in cold weather.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	7.1	D-445
Viscosity index (VI)	180	D-2270
Flash point, °C	205	D-92
Pour point, °C	-45	D-97
Density @ 15 °C, Kg/m^3	845	D-1298
Brookfield viscosity, cP	@ -40°C ≤13500	D-2983

* Packaging

- 1L. Container Carton (12×1L)

Automatic Transmission Fluid

IRANOL ATF-MULTI is formulated using fully synthetic base oil with low viscosity and special additives with advanced technology.

Performance Levels

- **GM Dexron IIIH**
- **JASO M315 Class 1A-LV**
- **TOYOTA Type WS/T-IV**
- **NISSAN/Infinity Mastic-S**
- **SUZUKI 3314/3317**
- **MITSUBISHI ATF J-3**
- **HONDA DW-1**
- **PSA Peugeot Citroen P/N Z 000169756**

Applications

- This product is designed for use in passenger cars with 4, 5 and 6-speed automatic transmissions.

Advantages

- Exceptional anti-wear and anti-shudder performance.
- Smooth shifting without vibration or shudder.
- Contributes to improved fuel economy.
- Excellent oxidation resistance under high temperature conditions.
- Enhanced anti-friction properties for reduced shift shock.
- Long service life, resulting in reduced oil consumption costs.
- Excellent fluidity at low temperatures for easy shifting in cold weather.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	6.5	D-445
Viscosity index (VI)	120	D-2270
Flash point, °C	180	D-92
Pour point, °C	-42	D-97
Density @ 15 °C, Kg/m^3	850	D-1298
Brookfield viscosity, cP	@ -40°C ≤20000	D-2983

* Packaging

- 1L. Container Carton (12×1L)

IRANOL ATF-SP-IV is formulated using fully synthetic base oil and special additives to reduce friction between metal parts.

Performance Levels

- **HYUNDAI SP-IV**
- **JASO M315 1A-LV**
- **TOYOTA WS**
- **NISSAN MATC S**
- **SP-IV**
- **HYBRID COMPATIBILITY**

Applications

- This product, which meets the JASO M315 1A-LV performance level, is designed for use in Japanese and Korean passenger cars equipped with 6—speed and lower automatic transmissions.

Advantages

- Fully synthetic automatic transmission fluid with low viscosity.
- Preventing vibration and consequently increasing the gearbox lifespan.
- Long service life, resulting in reduced oil consumption costs.
- Excellent oxidation resistance under high temperature conditions.
- Excellent fluidity at low temperatures for easy shifting in cold weather.
- Enhanced anti-friction properties for reduced shift shock.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	5.4	D-445
Viscosity index (VI)	150	D-2270
Flash point, °C	175	D-92
Pour point, °C	-42	D-97
Density @ 15 °C, Kg/m^3	850	D-1298
Brookfield viscosity, cP	@ -40°C ≤10000	D-2983

* Packaging

- 1L. Container Carton (12×1L)

Automatic Transmission Fluid

IRANOL ATF-III is produced using high-quality paraffinic base oil obtained from fractional distillation of crude oil, subjected to hydrotreatment process. It contains special additives that provide excellent power transmission, anti-wear, and anti-oxidation properties.

Performance Levels

- **Dexron IIIG**
- **Mercon**
- **Allison C-4**
- **Caterpillar TO-2**

Applications

- This product is used in all automatic transmission gearbox of vehicles, hydraulic power steering systems of various vehicles, and hydraulic systems of many industrial equipment that recommended the above quality levels.

Advantages

- Suitable anti-wear properties to increase the life of power transmission system.
- Fluidity at low temperatures, which leads to easy lubrication and reduced power loss during cold start.
- Foam control to improve lubrication and control wear and friction between parts under severe operating conditions.
- Compatibility with all sealing components used in the power transmission system.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	7	D-445
Viscosity index (VI)	180	D-2270
Flash point, °C	180	D-92
Pour point, °C	-42	D-97
Density @ 15 °C, Kg/m^3	860	D-1298
Brookfield viscosity, cP	@ -40°C ≤20000	D-2983

* Packaging

- 1L. Container Carton (12×1L)
- Drum 208L.

IRANOL ATF-II is produced using high-quality paraffinic base oil obtained from fractional distillation of crude oil, subjected to hydrotreatment process. It contains special additives that provide excellent power transmission, anti-wear, and anti-oxidation properties.

Performance Levels

- **Dexron IID**
- **Ford Mercon**
- **Allison C-4**
- **Caterpillar TO-2**

Applications

- This product is used in all automatic transmission gearbox of vehicles, hydraulic power steering systems of various vehicles, and hydraulic systems of many industrial equipment that recommended the above quality levels.

Advantages

- High thermal and oxidation stability that prevents the formation of varnish, sludge, and deposits and increases the efficiency of the power transmission system.
- Suitable anti-wear properties to increase the life of the power transmission system.
- Compatibility with all sealing components used in IID type connections, which plays an effective role in controlling oil leakage.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	7	D-445
Viscosity index (VI)	170	D-2270
Flash point, °C	170	D-92
Pour point, °C	-39	D-97
Density @ 15 °C, Kg/m^3	860	D-1298
Brookfield viscosity, cP	@ -40°C ≤50000	D-2983

* Packaging

- 1L. Container Carton (12×1L)
- Drum 208L.

Automotive Gear and Differential Oil

IRANOL XP is produced using high-quality paraffinic base oil, derived from the distillation of crude oil, and appropriate extreme pressure additives.

Performance Levels

- **API GL-5**
- **MIL- L-2105 D**
- **INSO 2810**

Applications

- In all non-automatic gearboxes of light and heavy vehicles and other vehicles, also in all power transmission systems that meet the above performance levels.
- this product is recommended for hypoid gears and differentials of vehicles.

Advantages

- Excellent protection against wear and load capacity at low speed, high torque and high speed, low torque.
- Excellent protection against corrosion and wear and increased life of gears and bearings.
- Thermal stability and excellent resistance to oxidation, which increases the life of the oil.
- Proper lubrication with resistance to channeling at low temperatures.

Typical physical characteristics

Characteristic	75W	75W-80	75W-90	80W-90	85W-90	85W-140	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	4.1	7	15	15.5	17	27	D-445
Viscosity index (VI)	100	100	190	105	90	85	D-2270
Flash point, °C	160	170	190	220	200	205	D-92
Pour point, °C	-39	-27	-39	-30	-18	-18	D-97
Density @ 15 °C, Kg/m^3	870	875	880	895	900	905	D-1298

* Other grades can be produced upon request.

* Packaging

- 1L. Container Carton (12×1L)
- Pail 20L.

IRANOL EP is produced using high-quality paraffinic base oil, derived from the distillation of crude oil, and appropriate extreme pressure additives.

Performance Levels

- **API GL-4**
- **INSO 2873**

Applications

- In all non-automatic gearboxes of light and heavy vehicles and other vehicles, also in all power transmission systems that meet the above performance levels.

  * **NOTE: this product is not recommended for use in gearboxes with hypoid gears.**

Advantages

- Excellent protection against wear and load capacity at low speed, high torque and high speed, low torque.
- Thermal stability and excellent resistance to oxidation, which increases the life of the oil.
- Proper lubrication with resistance to channeling at low temperatures.

Typical physical characteristics

Characteristic	75W	75W-80	80W	75W-90	80W-90	85W-90	85W-140	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	4.1	8	9.5	15	15.5	17	27	D-445
Viscosity index (VI)	100	130	95	180	105	90	90	D-2270
Flash point, °C	160	170	190	190	200	200	205	D-92
Pour point, °C	-39	-39	-33	-39	-27	-18	-18	D-97
Density @ 15 °C, Kg/m^3	870	875	880	860	900	900	905	D-1298

* Other grades can be produced upon request.

* Packaging

- 1L. Container Carton (12×1L)
- 2L. Container Carton (6×2L)
- Pail 20L.

IRAOL AW is produced using high-quality paraffinic base oil, derived from the distillation of crude oil, and suitable additives.

Performance Levels

- **API GL-3**

Applications

- In all non-automatic gearboxes and axles of semi-heavy vehicles that operate under moderate conditions in terms of speed and load.

  * **NOTE: this product is not recommended for use in gearboxes with hypoid gears.**

Advantages

- High protection against wear.
- Protection against corrosion and erosion resulted in increased service life of gears and bearings.
- Proper lubrication with resistance to channeling at low temperatures.

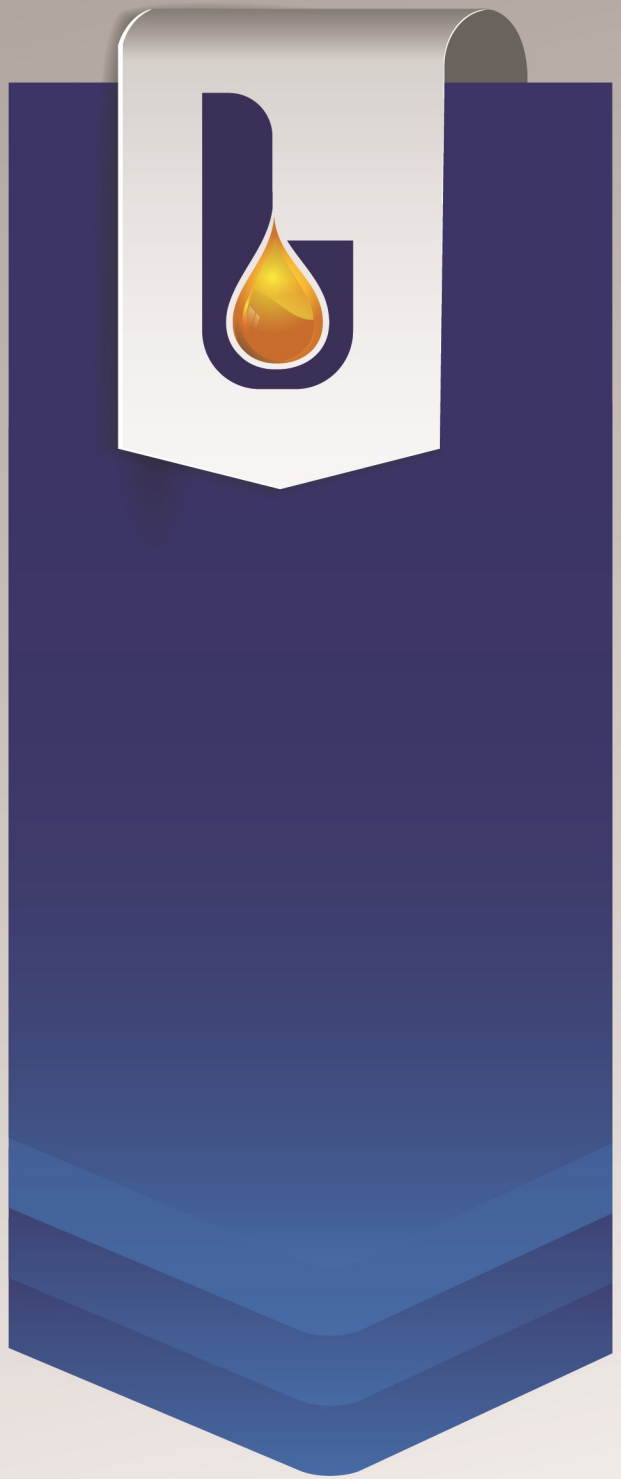
Typical physical characteristics

Characteristic	5W-30	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	11	D-445
Viscosity index (VI)	150	D-2270
Flash point, °C	200	D-92
Pour point, °C	-30	D-97
Density @ 15 °C, Kg/m^3	860	D-1298
CCS, cP	@ -30°C ≤6600	D-5293

* Packaging

- Drum 208L.

Industrial Lubricants



IRANOL HD is produced using high-quality group II base oil derived from the fractional distillation of crude oil and hydrogenation, as well as anti-wear, anti-oxidation and anti-rust additives.

Performance Levels

- **DENISON HF-0**
- **DIN 51524 Part - II**
- **INSO 6423**

Applications

- Hydraulic and industrial power transmission systems, marine hydraulic equipment, and static and dynamic hydraulic machinery in road construction and building machinery, also in cases where the above performance levels are recommended.

Advantages

- Excellent protection of parts against abrasion, oxidation and rust.
- Resistance to compressibility.
- Air release properties.
- Excellent filterability.
- Long life of equipment and reduced repair costs.

Typical physical characteristics

Characteristic	46	68	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	46	68	D-445
Viscosity index (VI)	100	100	D-2270
Flash point, °C	215	218	D-92
Pour point, °C	-33	-30	D-97
Density @ 15 °C, Kg/m^3	860	870	D-1298
Water separability	Pass		D-1401
Copper corrosion @ 100 °C	Class 1a		D-130

* Packaging

- Drum 208L.

IRANOL VHV is produced using high-quality paraffinic base oil derived from the fractional distillation of crude oil and hydrogenation, as well as premium additives.

Performance Levels

- **DENISON HF-0**
- **DIN 51524 Part - III**

Applications

- HVLP Hydraulic and industrial power transmission systems, marine hydraulic equipment, and static and dynamic hydraulic machinery in road construction and building machinery, also in cases where the above performance levels are recommended.

Advantages

- Anti-wear, anti-oxidation and anti-rust properties.
- High viscosity index for operation in wide temperature range.
- Resistance to compressibility.
- Air release properties.
- Excellent filterability.

Typical physical characteristics

Characteristic	32	46	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	D-445
Viscosity index (VI)	202	183	D-2270
Flash point, °C	221	221	D-92
Pour point, °C	-33	-33	D-97
Density @ 15 °C, Kg/m^3	854	860	D-1298
Water separability	Pass		D-1401
Copper corrosion @ 100 °C	Class 1a		D-130

* Packaging

- Drum 208L.

IRANOL HV is produced using high-quality paraffinic base oil derived from the fractional distillation of crude oil, subjected to a hydrogenation process. It also contains additives that enhance the viscosity index, provide anti-wear, anti-oxidation and anti-rust priorities, specifically designed for power transmission applications.

Performance Levels

- **DENISON HF-0,1,2**
- **DIN 51524 Part – III (HVLP)**

Applications

- Industrial and marine hydraulic and power transmission systems.
- Static and dynamic hydrohalic equipment in road construction and building machinery.
- Recommended for applications where the above performance levels are specified by the manufacturer, particularly in equipment operating under variable and wide temperature ranges.

Advantages

- High viscosity index.
- Excellent oxidation and shear stability.
- Excellent water separation and air release properties.
- High resistance to compressibility.
- Excellent filterability.
- Protection against corrosion and rust.

Typical physical characteristics

Characteristic	15	22	32	37	46	68	100	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	15	22	32	37	46	68	100	D-445
Viscosity index (VI)	150	150	150	150	150	150	150	D-2270
Flash point, °C	170	180	195	200	210	210	215	D-92
Pour point, °C	-30	-30	-30	-36	-30	-30	-30	D-97
Density @ 15 °C, Kg/m^3	850	860	870	870	875	880	885	D-1298
Water separability	PASS							D-1401
Copper corrosion @ 100 °C	Class 1a							D-130

* Packaging

- Drum 208L.

Zinc-Free Hydraulic Oil

IRAOL HZ is formulated using high-quality paraffinic base oil produced through the fractional distillation of crude oil and a hydrotreatment process. It incorporates appropriate zinc-free (Zn-Free) additive packages.

Performance Levels

- **DENISON HF-0,1,2**
- **DIN 51524 Part – II (HLP)**

Applications

- Industrial and marine hydraulic and power transmission systems.
- Static and dynamic hydraulic equipment in road construction machinery.
- Recommended for other equipment where soft and colored metal alloys such as silver and bronze are used.

Advantages

- High resistance to component wear.
- Excellent oxidation stability.
- Excellent water separation and air release properties.
- High resistance to compressibility.
- Excellent filterability.
- High compatibility with seals.

Typical physical characteristics

Characteristic	32	46	68	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	68	D-445
Viscosity index (VI)	100	100	100	D-2270
Flash point, °C	205	210	220	D-92
Pour point, °C	-30	-30	-30	D-97
Density @ 15 °C, Kg/m^3	870	875	880	D-1298
Water separability	PASS			D-1401
Copper corrosion @ 100 °C	Class 1a			D-130

* Packaging

- Drum 208L.

IRANOL H is produced using high-quality paraffinic base oil derived from the fractional distillation of crude oil, subjected to a hydrogenation process. It also contains additives that provide anti-wear, anti-oxidation and anti-rust priorities, specifically designed for power transmission applications.

Performance Levels

- **DENISON HF-0**
- **DIN 51524 Part – II (HLP)**
- **INSO 6423**

Applications

- Industrial and marine hydraulic systems.
- Static and dynamic hydrohalic equipment in road construction and building machinery and other applications where the above performance levels are specified by the manufacturer.

Advantages

- good oxidation stability.
- water separation and air release properties.
- High resistance to compressibility.
- Excellent filterability.

Typical physical characteristics

Characteristic	22	32	37	46	68	100	150	220	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	22	32	37	46	68	100	150	220	D-445
Viscosity index (VI)	95	100	95	95	95	95	95	95	D-2270
Flash point, °C	180	195	205	210	210	230	235	240	D-92
Pour point	-27	-27	-27	-27	-24	-21	-21	-21	D-97
Pour point, °C	865	870	875	875	880	885	890	895	D-1298
Water separability	PASS								D-1401
Copper corrosion @ 100 °C	Class 1a								D-130

* Packaging

- Pail 20L.
- Drum 208L.

IRANOL HPM is produced using high-quality base oil derived from the fractional distillation of crude oil, followed by a hydrotreatment process. It contains anti-oxidation and anti-rust additives suitable for both humid and dry climates, also is designed for operation at very high temperatures.

Performance Levels

- **DIN 51517 Part - II**

Applications

- Applicable in all circulating systems of paper-making industries where the above standard is recommended by the equipment manufacturer.
- This product is specifically designed for lubrication of bearings, hydraulic sections of the system, and enclosed gears of paper machine.

Advantages

- Excellent resistance to oxidation.
- Protect against rust, corrosion, and wear of components.
- Excellent water separation capability.
- Compatible with seals.
- High protection against wear.

Typical physical characteristics

Characteristic	220	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	220	D-445
Viscosity index (VI)	95	D-2270
Flash point, °C	265	D-92
Pour point, °C	-9	D-97
Density @ 15 °C, Kg/m^3	890	D-1298
Water separability	PASS	D-1401

* Packaging

- Drum 208L.

IRANOL 10 is produced using paraffinic base oil from the fractional distillation of crude oil and appropriate additives with the ability to lower the pour point.

Performance Levels

- **API SC/CC**
- **DEF STAN 91-43**

Applications

- Suitable for use in static hydraulic systems such as simple lifts.

Advantages

- Anti-wear properties.
- Protects against corrosion and rust of parts.

Typical physical characteristics

Characteristic	10W	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	6	D-445
Viscosity index (VI)	90	D-2270
Flash point, °C	195	D-92
Pour point, °C	-30	D-97
Density @ 15 °C, Kg/m^3	880	D-1298
TBN, mg KOH/mg	2	D-2896

* Packaging

- Pail 20L.
- Drum 208L.

Special Performance Circulating Oil

IRANOL CM is produced using high-quality paraffinic base oil resulting from the fractional distillation of crude oil and a hydrogenation process, as well as appropriate additive for use in the rolling systems of steel industries.

Performance Levels

- **Morgan Construction Company's "No-Twist ® Rod Mill" Lubricants Specification.**
- **Danieli standard (Rev.14)**
- **SEB 181225**
- **DIN 51517 part III (CLP)**

Applications

- For the lubrication of rolling mill rolls.

Advantages

- Excellent protection of parts against corrosion, rust and wear.
- Excellent resistance to oxidation and heat.
- Inert to copper alloys and reduces the catalytic properties of these metals.
- Very rapid water separation.
- Good air release capability.

Typical physical characteristics

Characteristic	100	220	320	460	680	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	100	220	320	460	680	D-445
Viscosity index (VI)	95	95	90	90	90	D-2270
Flash point, °C	240	240	240	240	250	D-92
Pour point, °C	-15	-15	-12	-12	-12	D-97
Density @ 15 °C, Kg/m^3	880	890	890	900	905	D-1298
Water separability	PASS					D-1401
Copper corrosion @ 100 °C	Class 1a					D-130
Rust protection	PASS					D-665 METHOD A,B

* Packaging

- Drum 208L.

Non-Pressurized Circulating Oil

IRANOL CN-non-EP is formulated using paraffinic base oil and high-quality additives suitable for a wide range of industries that do not require an oil with anti-wear properties.

Performance Levels

- **DIN 51517 part I & II**
- **AGMA 9005-D94**

Applications

- Suitable for plain and rolling bearings and general industrial applications.
- Designed for closed industrial gear systems that do not require high pressure resistance.

Advantages

- With non-EP (non-extreme pressure) properties.
- Excellent oxidation stability.
- Excellent protection against rust and corrosion of parts.
- Excellent water and air separation capability.
- Long service life and contributes to increasing the service life of the system.

Typical physical characteristics

Characteristic	46	68	100	150	220	320	460	680	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	46	68	100	150	220	320	460	680	D-445
Viscosity index (VI)	105	102	99	97	96	95	95	95	D-2270
Flash point, °C	217	237	251	273	283	303	306	309	D-92
Pour point, °C	-24	-24	-21	-21	-15	-12	-12	-9	D-97
Density @ 15 °C, Kg/m^3	875	878	881	885	890	895	898	900	D-1298

* Packaging

- Drum 208L.

High-Performance Circulating Oil

IRANOL C is formulated using high quality paraffinic base oil resulting from the fractional distillation of crude oil and a hydrogeneration process, also anti-oxidation and anti-rust (R& O) additives are added.

Performance Levels

- **DIN 51524 part 1 (HL)**

Applications

- In all circulating systems where the above performance level is recommended by the equipment manufacturer.

Advantages

- Excellent stability against oxidation, rust and corrosion of parts.
- Excellent separability from water.
- Inert to copper alloys and reduces the catalytic properties of these metals.
- Protection against rust and corrosion of parts.

Typical physical characteristics

Characteristic	22	32	46	68	100	150	220	320	460	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	22	32	46	68	100	150	220	320	460	D-445
Viscosity index (VI)	95	95	95	95	95	95	95	95	95	D-2270
Flash point, °C	180	195	210	210	230	235	240	245	245	D-92
Pour point, °C	-22	-18	-15	-12	-12	-12	-12	-12	-6	D-97
Density @ 15 °C, Kg/m^3	865	870	875	880	885	890	895	895	900	D-1298
Water separability	PASS									D-1401
Rust protection	PASS									D-665 METHOD A

* Packaging

- Drum 208L.

Premium Turbine Oil for Steam, Water, And Gas Turbines

IRANOL HBX PLUS is produced using group III base oil and appropriate additives with a special formulation designed to improve oxidation and thermal stability, also extend oil life under severe operating conditions.

Performance Levels

- **DIN 51515, part I, II**
- **General Electric GEK-32568 A/C**
- **BS 489:1999**
- **Alstom HTGD 90117 V0001 S**

Applications

- Suitable for use in steam and gas turbines and turbo compressors.
- Used in combined cycle power plants, oil and gas refineries, petrochemical complexes, and oil and gas transmission lines.

Advantages

- Excellent oxidation and thermal stability.
- Perfect rust and corrosion protection.
- Excellent water separation and air release properties.
- Resistance to sludge, deposits and fouling in the system.
- Extends system life.

Typical physical characteristics

Characteristic	32	46	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	D-445
Viscosity index (VI)	120	120	D-2270
Flash point, °C	220	225	D-92
Pour point, °C	-12	-12	D-97
Density @ 15 °C, Kg/m^3	840	845	D-1298
Acid number, mg/KOH	0.1	0.1	D-664
Water separability	PASS		D-1401
Copper corrosion @ 100 °C	Class 1a		D-130
Rust Protection	PASS		D-665 Method A

* Packaging

- Drum 208L.

High-Efficiency Steam, Water, And Gas Turbine Oil

IRANOL HBX II is produced using group II base oil and appropriate additives with a special formulation designed to improve oxidation and thermal stability, also extend oil life under severe operating conditions.

Performance Levels

- **DIN 51515, part I, II**
- **General Electric GEK-32568 A/C**
- **BS 489**
- **Alstom HTGD 90 117 V0001S**

Applications

- Suitable for use in steam and gas turbines and turbo compressors.
- Used in combined cycle power plants, oil and gas refineries, petrochemical complexes, and oil and gas transmission lines.

Advantages

- Excellent oxidation and thermal stability.
- Perfect rust and corrosion protection.
- Excellent water separation and air release properties.
- Resistance to sludge, deposits and fouling in the system.
- Extends system life.

Typical physical characteristics

Characteristic	32	46	68	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	68	D-445
Viscosity index (VI)	105	105	100	D-2270
Flash point, °C	200	205	215	D-92
Pour point, °C	-15	-15	-15	D-97
Density @ 15 °C, Kg/m^3	865	865	880	D-1298
Acid number, mg/KOH	0.1	0.1	0.1	D-664
Water separability	PASS			D-1401
Copper corrosion @ 100 °C	Class 1a			D-130
Rust Protection	PASS			D-665 Method A

* Packaging

- Drum 208L.

Steam, Water, And Gas Turbine Oil

IRANOL HBX is produced using very high-quality paraffinic base oil, resulting from the fractional distillation of crude oil and a hydrogenation process, and appropriate additives are added.

Performance Levels

- **DIN 51515, part I, II**
- **General Electric GEK-32568 A/C**
- **BS 489**
- **Alstom HTGD 90 117 V0001S**

Applications

- Suitable for use in steam and gas turbines and turbo compressors.
- Used in combined cycle power plants, oil and gas refineries, petrochemical complexes.

Advantages

- Excellent oxidation and thermal stability.
- Perfect rust and corrosion protection.
- Excellent water separation and air release properties.
- Resistance to foam formation, sludge, deposits and fouling in the system.
- Extends system life.

Typical physical characteristics

Characteristic	32	46	68	77	100	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	68	77	100	D-445
Viscosity index (VI)	95	95	95	95	95	D-2270
Flash point, °C	195	205	215	230	225	D-92
Pour point, °C	-12	-9	-9	-9	-6	D-97
Density @ 15 °C, Kg/m^3	870	875	880	875	885	D-1298
Acid number, mg/KOH	0.15	0.15	0.15	0.15	0.15	D-664
Water separability	PASS					D-1401
Copper corrosion @ 100 °C	Class 1a					D-130
Rust Protection	PASS					D-665 Method A

* Packaging

- Drum 208L.

Special performance turbine oil for gas, steam, and water turbines

IRANOL HBS PLUS is produced using group III base oil and appropriate additives with a special formulation designed to improve oxidation and thermal stability, also extend oil life under severe operating conditions.

Performance Levels

- **DIN 51515, part I, II**
- **General Electric GEK-32568 A/C**
- **BS 489**
- **Alstom HTGD 90 117 V0001S**

Applications

- Suitable for use in steam and gas turbines and turbo compressors.
- Used in combined cycle power plants, and oil and gas transmission lines.

Advantages

- Excellent fluidity at low temperatures.
- High viscosity index.
- Excellent oxidation and thermal stability.
- Perfect rust and corrosion protection.
- Excellent water separation.
- Resistance to sludge, deposits and fouling in the system.

Typical physical characteristics

Characteristic	46	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	46	D-445
Viscosity index (VI)	138	D-2270
Flash point, °C	253	D-92
Pour point, °C	-30	D-97
Density @ 15 °C, Kg/m^3	843	D-1298
Copper corrosion @ 100 °C	Class 1a	D-130
Rust Protection	PASS	D-665 Method A/B

* Packaging

- Drum 208L.

Specialty Turbine Oil for Gas, Steam, And Water Turbines

IRANOL HBS II is produced using group II base oil and appropriate additives with a special formulation designed to improve oxidation and thermal stability, also extend oil life under severe operating conditions.

Performance Levels

- **DIN 51515, part I, II**
- **General Electric GEK-32568 A/C**
- **BS 489**
- **Alstom HTGD 90 117 V0001S**

Applications

- Suitable for use in steam and gas turbines and turbo compressors.
- Used in combined cycle power plants, and oil and gas transmission lines.

Advantages

- Excellent fluidity at low temperatures.
- Excellent oxidation and thermal stability.
- Perfect rust and corrosion protection.
- Excellent water separation.
- Resistance to sludge, deposits and fouling in the system.

Typical physical characteristics

Characteristic	32	46	68	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	68	D-445
Viscosity index (VI)	105	105	105	D-2270
Flash point, °C	195	205	215	D-92
Pour point, °C	-30	-30	-30	D-97
Density @ 15 °C, Kg/m^3	865	875	880	D-1298
Acid number, mg KOH/mg	0.1	0.1	0.1	D-664
Water separability	PASS			D-1401
Copper corrosion @ 100 °C	Class 1a			D-130
Rust Protection	PASS			D-665 Method A

* Packaging

- Drum 208L.

Particular Turbine Oil for Gas, Steam, And Water Turbines

IRANOL HBS is produced using premium paraffinic base oil derived from crude oil refining and hydrogenation process, along with appropriate additives.

Performance Levels

- **DIN 51515, part I, II**
- **General Electric GEK-32568 A/C**
- **BS 489**
- **Alstom HTGD 90 117 V0001S**

Applications

- Suitable for use in steam and gas turbines and turbo compressors.
- Used in combined cycle power plants, refineries, and petrochemical complexes.

Advantages

- Excellent fluidity at low temperatures.
- Excellent oxidation and thermal stability.
- Perfect rust and corrosion protection.
- Excellent water separation and air release properties.
- Resistance to foaming, deposits and system contamination.
- Extends system life.

Typical physical characteristics

Characteristic	32	46	68	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	68	D-445
Viscosity index (VI)	95	95	95	D-2270
Flash point, °C	195	205	215	D-92
Pour point, °C	-30	-30	-30	D-97
Density @ 15 °C, Kg/m^3	870	875	880	D-1298
Acid number, mg KOH/mg	0.15	0.15	0.15	D-664
Water separability	PASS			D-1401
Copper corrosion @ 100 °C	Class 1a			D-130
Rust Protection	PASS			D-665 Method A

* Packaging

- Drum 208L.

IRANOL HB is produced using paraffinic base oil derived from crude oil refining and hydrogenation process, along with suitable additives.

Performance Levels

- **DIN 51515, part I, II**
- **General Electric GEK-32568 A/C**
- **BS 489**
- **Alstom HTGD 90 117 V0001S**

Applications

- Steam turbines, high-speed industrial gears, and special industrial bearings where the above performance levels are recommended by manufacturer.

Advantages

- Perfect rust and corrosion protection.
- Excellent oxidation and thermal stability.
- Excellent water separation and air release properties.
- Extends system life.

Typical physical characteristics

Characteristic	32 HB 65	46 HB 80	68 HB 100	100 HB 125	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	68	100	D-445
Viscosity index (VI)	95	95	95	95	D-2270
Flash point, °C	195	205	215	225	D-92
Pour point, °C	-6	-6	-6	-6	D-97
Density @ 15 °C, Kg/m^3	870	875	880	885	D-1298
Acid number, mg KOH/mg	0.15	0.15	0.15	0.15	D-664
Water separability	PASS				D-1401
Copper corrosion @ 100 °C	Class 1a				D-130

* Packaging

- Drum 208L.

IRANOL VDL-PS is formulated using a blend of fully synthetic base oils and selected additives.

Performance Levels

- **DIN 51506-VDL**

Applications

- Suitable for use in various types of air compressors operating under severe conditions and high temperatures.

Advantages

- High thermal stability.
- Excellent lubrication for gears and bearings in rotary compressors.
- Excellent oxidation and thermal stability.
- Perfect rust and corrosion protection.
- Excellent water separation and air release properties.
- Wide operating temperature range.
- Provides excellent protection against wear and corrosion.

Typical physical characteristics

Characteristic	32	46	68	100	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	68	100	D-445
Viscosity index (VI)	140	140	140	140	D-2270
Flash point	225	235	245	250	D-92
Pour point	-47	-47	-45	-33	D-97
Density @ 15 °C, Kg/m^3	850	855	855	860	D-1298
Water separability	PASS				D-1401
Copper corrosion @ 100 °C	Class 1a				D-130
Rust Protection	PASS				D-665 Method A

* Packaging

- Drum 208L.

IRANOL VDL-X is formulated using high-quality group II base oil and appropriate additives, specially designed to improve oxidation and heat stability, extend oil life, and reduce sludge in compressors under operating conditions.

Performance Levels

- **DIN 51506-VDL**

Applications

- Suitable for use in all types of compressors, including reciprocating, rotary screw, centrifugal, etc.

Advantages

- Excellent lubrication for gears and bearings in rotary compressors.
- Reduces coke and sludge formation, leading to increased compressor efficiency.
- Excellent water separation and air release properties.
- Excellent oxidation resistance, high protection of parts at high and low temperatures.

Typical physical characteristics

Characteristic	32	46	68	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	68	D-445
Viscosity index (VI)	100	95	95	D-2270
Flash point, °C	195	205	205	D-92
Pour point, °C	-15	-15	-9	D-97
Density @ 15 °C, Kg/m^3	870	875	880	D-1298
Water separability	PASS			D-1401
Copper corrosion @ 100 °C	Class 1a			D-130
Rust Protection	PASS			D-665 Method A

* Packaging

- Drum 208L.

Air Compressor Oil

IRANOL VDL is formulated using high-quality paraffinic base oil derived from crude oil refining and solvent extraction, along with appropriate additives.

Performance Levels

- **DIN 51506-VDL**

Applications

- Suitable for use in all types of compressors, including reciprocating, rotary screw, centrifugal, etc.

Advantages

- Excellent lubrication of piston rings and cylinders.
- Excellent lubrication for gears and bearings in rotary compressors.
- Reduces coke formation in discharge valves and intercoolers, leading to increased compressor efficiency.
- Extends oil life in circulating systems.
- Excellent water separation and air release properties.
- Protects parts against rust, corrosion, and oxidation.

Typical physical characteristics

Characteristic	32	46	68	100	150	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	68	100	150	D-445
Viscosity index (VI)	95	95	95	95	95	D-2270
Flash point, °C	195	210	220	230	240	D-92
Pour point, °C	-9	-9	-9	-9	-9	D-97
Density @ 15 °C	870	875	880	885	885	D-1298
Water separability	PASS					D-1401
Copper corrosion @ 100 °C	Class 1a					D-130
Rust Protection	PASS					D-665 Method A

* Packaging

- Drum 208L.

IRANOL VB is formulated using high-quality paraffinic base oil derived from crude oil.

Performance Levels

- **DIN 51506-VB**

Applications

- Reciprocating air compressors with outlet temperatures up to 100 **°C,** where manufacturers recommend the use of non-additive oil.
- Due to its low volatility, it is also recommended for lubricating vacuum pumps.

Advantages

- Utilizing a narrow cut of base oil with high oxidation stability and natural detergency, which prevents sludge formation in the air compressor.

Typical physical characteristics

Characteristic	22	32	46	68	100	150	220	320	460	680	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	22	32	46	68	100	150	220	320	460	680	D-445
Viscosity index (VI)	95	95	90	90	90	90	90	90	90	85	D-2270
Flash point, °C	180	195	210	210	230	235	240	245	245	245	D-92
Pour point, °C	-24	-24	-21	-18	-15	-12	-12	-9	-6	-3	D-97
Density @ 15 °C, Kg/m^3	865	870	875	880	885	890	895	895	900	905	D-1298

* Packaging

- Drum 208L.

Refrigeration Compressor Oil

IRANOL LPT is formulated using high-quality paraffinic base oil derived from crude oil refining and appropriate additives.

Applications

- This oil is suitable for use in refrigeration compressors that operate with ammonia gas.
- All industrial refrigeration compressors in whose systems there is a gas separator tank from the oil.

Advantages

- Low pour point.
- Good chemical stability.

Typical physical characteristics

Characteristic	32	46	68	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	46	68	D-445
Flash point, °C	195	210	210	D-92
Pour point, °C	-30	-27	-24	D-97
Density @ 15 °C, Kg/m^3	870	875	880	D-1298
Water content, mL	NIL			CRANKLE TEST

* Packaging

- Drum 208L.

IRANOL LPT-G is produced using a selected narrow cut of naphthenic base oil.

Applications

- Usable in all refrigeration compressors with ammonia and hydrocarbon refrigerants R12-R22.

Advantages

- High-quality naphthenic base oil.
- Low pour point.
- Adequate lubrication properties, especially at very low operating temperatures.
- Good chemical stability in contact with refrigerant gas.

Typical physical characteristics

Characteristic	68	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	68	D-445
Flash point, °C	195	D-92
Pour point, °C	-24	D-97
Density @ 15 °C, Kg/m^3	910	D-1298
Dielectric strength, KV	45	D-877
Acid number, mg KOH/mg	0.05	D-664

* Packaging

- Drum 208L.

Synthetic Industrial Gear Oil

IRANOL IG-S is produced using fully synthetic base (PAO) and appropriate additives to enhance extreme pressure (EP) properties.

Performance Levels

- **AIST 224 (former US. STEEL 224)**
- **DIN 51517, part III (CLP)**

Applications

- Suitable industrial gear oil for use in all types of gears, including worm gears, helical gears, bevel gears and power transmission gears in the cement and steel industries, as well as in plain and rolling bearings and circulating systems, as recommended by the equipment manufacturer.
- Suitable for both splash and drip lubrication.

Advantages

- High oxidation stability at high temperatures (above 130 °C) and resistance to the formation of acidic sludge.
- Excellent anti-corrosion properties to prevent pitting.
- Excellent anti-wear and extreme pressure properties.
- Excellent water separation ability.
- Good thermal stability at high temperatures.
- High viscosity index and good fluidity at low temperatures.

Typical physical characteristics

Characteristic	150	220	320	460	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	150	220	320	460	D-445
Viscosity index (VI)	160	160	160	190	D-2270
Flash point, °C	235	235	235	250	D-92
Pour point, °C	-45	-45	-30	-30	D-97
Density @ 15 °C, Kg/m^3	850	855	855	865	D-1298
Copper corrosion @ 100 °C	Class 1b				D-130

* Packaging

- Drum 208L.

IRANOL IG-F is produced using premium paraffinic base oil derived from crude oil refining and appropriate additives to achieve approved specifications by Flender.

Performance Levels

- **Felender Revision 16**
- **AIST 224 (former US. STEEL 224)**
- **DIN 51517, part III (CLP)**
- **AGMA 9005-F16**
- **GB 5903**
- **ISO 12925-1**

Applications

- Suitable industrial gear oil for use in all types of gears, including worm gears, helical gears, bevel gears and power transmission gears in the cement and steel industries, as well as in plain and rolling bearings and circulating systems, as recommended by the equipment manufacturer.
- Suitable for both splash and drip lubrication.

Advantages

- Protection against micropitting.
- High oxidation stability at high temperatures (above 95 °C) and resistance to the formation of acidic sludge.
- Excellent water separation ability.
- Contains anti-rust and anti-corrosion additives that protect the gear surfaces against corrosion and rust.
- Excellent anti-wear and extreme pressure properties.

Typical physical characteristics

Characteristic	150	220	320	460	680	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	150	220	320	460	680	D-445
Viscosity index (VI)	95	95	95	95	95	D-2270
Flash point, °C	230	235	235	240	250	D-92
Pour point, °C	-15	-18	-12	-9	-9	D-97
Density @ 15 °C, Kg/m^3	890	895	900	900	905	D-1298
Copper corrosion @ 100 °C	Class 1b					D-130

* Packaging

- Drum 208L.

IRANOL IG is produced using high-quality paraffinic base oil derived from crude oil refining and suitable additives to enhance extreme pressure (EP) properties.

Performance Levels

- **AIST 224 (former US. STEEL 224)**
- **DIN 51517, part III (CLP)**

Applications

- Suitable industrial gear oil for use in all types of gears, including worm gears, helical gears, bevel gears and power transmission gears in the cement and steel industries, as well as in plain and rolling bearings and circulating systems, as recommended by the equipment manufacturer

Advantages

- High oxidation stability at high temperatures (above 95 °C) and resistance to the formation of acidic sludge.
- Excellent water separation ability.
- Excellent anti-wear and extreme pressure properties.
- Contains anti-foam additives that protect the gearboxes against wear.
- Contains anti-rust and anti-corrosion additives that protect the gear surfaces against corrosion and rust.

Typical physical characteristics

Characteristic	68	100	150	220	320	460	680	1000	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	68	100	150	220	320	460	680	1000	D-445
Viscosity index (VI)	95	95	95	95	95	95	95	95	D-2270
Flash point, °C	210	220	235	240	245	245	250	245	D-92
Pour point, °C	-24	-21	-18	-15	-12	-9	-6	-3	D-97
Density @ 15 °C, Kg/m^3	880	885	890	895	900	900	900	905	D-1298
Copper corrosion @ 100 °C	Class 1b								D-130

* Packaging

- Drum 208L.

IRANOL IG-CYL is produced using excellent paraffinic base oil derived from crude oil refining and well-suited additives.

Applications

- Compound oil for use in all steam cylinders, worm gears, and bearings with low-speed and medium-load operating conditions.
- Recommended by the equipment manufacturer.

Advantages

- High oxidation and resistance to the formation of acidic sludge.
- Possesses Anti-wear properties.
- Contains anti-foam additives that protect the gearboxes against wear.
- Contains anti-rust and anti-corrosion additives that protect the gear surfaces against corrosion and rust.

Typical physical characteristics

Characteristic	680	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	680	D-445
Viscosity index (VI)	95	D-2270
Flash point, °C	255	D-92
Pour point, °C	-6	D-97
Density @ 15 °C, Kg/m^3	900	D-1298

* Packaging

- Drum 208L.

IRANOL P is produced using excellent paraffinic base oil derived from crude oil refining and special additives.

Performance Levels

- **AIST 224 (former US. STEEL 224)**
- **DIN 51517, part III (CLP)**

➤ Applications

- A special type of industrial gear oil suitable for use in worm gears, helical gears, spiral bevel gears and power transmission gears in the steel industry, rolling mills, and plain bearings, roller mills, as well as rotary systems, where recommended by the equipment manufacturer.
- Suitable for both splash and drip lubrication.

➤ Advantages

- Excellent water separation ability.
- High oxidation stability at high temperatures (above 95 °C) and resistance to the formation of acidic sludge.
- Excellent anti-wear and extreme pressure properties.

➤ Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	27	D-445
Viscosity index (VI)	95	D-2270
Flash point, °C	240	D-92
Pour point, °C	-9	D-97
Density @ 15 °C, Kg/m^3	900	D-1298
Copper corrosion @ 100 °C	Class 1b	D-130

* Packaging

- Drum 208L.

IRANOL MC is produced using high-quality paraffinic base oil derived from crude oil refining and special additives.

Performance Levels

- **AIST 224 (former US. STEEL 224)**
- **DIN 51517, part III**

Applications

- A special type of industrial gear oil suitable for use in worm gears, helical gears, spiral bevel gears and power transmission gears in the steel industry, rolling mills, and plain bearings, roller mills, as well as rotary systems, where recommended by the equipment manufacturer.

Advantages

- Excellent water separation ability.
- High oxidation stability at high temperatures (above 95 °C) and resistance to the formation of acidic sludge.
- Excellent anti-wear and extreme pressure properties.
- Contains anti-foam additives that protect the gearboxes against wear.
- Contains anti-rust and anti-corrosion additives that protect the gear surfaces against corrosion and rust.

Typical physical characteristics

Characteristic	MC 14	MC 20	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	150	320	D-445
Viscosity index (VI)	95	95	D-2270
Flash point	230	240	D-92
Pour point	-15	-15	D-97
Density @ 15 °C	890	900	D-1298
Copper corrosion @ 100 °C	Class 1b		D-130

* Packaging

- Drum 208L.

IRANOL TRANS C is produced using oil obtained from ISO RECYCLE refining, intended for low-voltage transformers.

Performance Levels

- **IEC 296 Claas-I**
- **INSO 2661**

Applications

- Suitable for all step-down power transformers, as well as circuit breakers and switches where the above performance levels are recommended by the equipment manufacturer.

Advantages

- High heat transfer capability.
- Suitable for low operating temperatures.
- Chemical and thermal stability, leading to increased service life and oil lifespan.
- Low viscosity.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	16	D-445
Dielectric strength, KV	30	IEC 156 II
Dielectric loss factor	<0.005	IEC 247
Flash point, °C	140	D-93
Pour point, °C	-30	D-97
Density @ 15 °C, Kg/m^3	860	D-1298
Acid number, mg KOH/ mg	0.03	D-664
Oxidation stability, mg KOH/ mg	1.5	BS 148
Acid sludge, %WT	0.3	

* Packaging

- Drum 208L.

High Voltage Transformer Oil

IRANOL TRANS is produced using select naphthenic base oil without inhibitors, boasting excellent dielectric properties and low pour point. It is designed for use in electrical systems where moderate oxidation stability is required.

Performance Levels

- **IEC 60296: 2003**

Applications

- Suitable for all step-down power transformers, as well as circuit breakers and switches where the above performance levels are recommended by the equipment manufacturer.

Advantages

- Excellent solubility and suspension properties to prevent sludge deposition during operation and prevent blockage of transformer channels.
- Good oxidation stability.
- Low viscosity to improve heat transfer in the system.

Typical physical characteristics

Characteristic	Trans D	Trans DN	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	11	9.5	D-445
Dielectric strength, KV	50	30	IEC 60156
Flash point, °C	140	140	D-93
Pour point, °C	-40	-40	D-97
Density @ 15 °C, Kg/m^3	885	885	D-1298

* Packaging

- Drum 208 L

Synthetic Heat Transfer Oil

IRANOL HT-S is a heat transfer oil formulated using a fully synthetic base oil, designed to meet the required specifications of closed-loop systems.

Applications

- In closed heat transfer systems up to a maximum operating temperature of 350 °C.
- In open heat transfer systems up to a maximum operating temperature of 210 °C.
- In the installation and operation of equipment where the minimum shutdown temperature is not less than -15 °C.

Advantages

- Excellent thermal and oxidation stability and resistance to molecular breakdown.
- Excellent heat transfer efficiency in absorbing and conducting heat.
- Optimized flash point, vaporization point, and volatility control to reduce vapor pressure at high temperatures.
- Increased fluid service life and reduced operating costs.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Color	0.5	D-1500
Kinematic viscosity @ 40 °C, cSt	32	D-445
Viscosity index (VI)	120	D-2270
Flash point, °C	215	D-92
Pour point, °C	-15	D-97
Density @ 15 °C, Kg/m^3	845	D-1298
Copper corrosion @ 100 °C	Class 1a	D-130
Distillation range (IBP), °C	395	D-1160

* Packaging

- Drum 208L.

IRANOL HT-B is produced using high-quality paraffinic base oil obtained from the fractional distillation of crude oil and subjected to a full hydro finishing process. The base oil in this product is carefully selected and refined to ensure it meets the required specifications, particularly regarding the absence of oil vapor in the system.

Applications

- It is used in closed heat transfer systems that operate up to maximum temperature of 300 °C.
- It is recommended for open heat transfer systems that operate up to a maximum temperature of 180 °C.
- In the installation and operation of equipment where the minimum shutdown temperature is not less than -7 °C.

Advantages

- Excellent thermal and oxidation stability.
- Reduced sludge formation.
- High oxidation stability and prevention of sludge formation at high operating temperatures due to the use of oxidation inhibitor additives, which leads to increased oil life.
- High thermal efficiency in heat absorption and transfer.
- High thermal stability that increases the service life of the fluid and prevents molecular breakdown of the fluid.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	D-445
Viscosity index (VI)	95	D-2270
Flash point, °C	215	D-92
Pour point, °C	-6	D-97
Density @ 15 °C, Kg/m^3	870	D-1298
Distillation range (IBP), °C	330	D-1160

* Packaging

- Drum 208L.

IRANOL CQ is produced using high-quality paraffinic base oil obtained from the refining of crude oil and subjected to a hydro finishing process, as well as appropriate additives.

➤ Applications

- Suitable for general-purpose cold quenching heat treatment applications, especially in cases where the desired properties for harsh conditions are not required.

➤ Advantages

- Oxidation and thermal stability.
- Reduced deposit formation on parts.
- Reduced acidity and sludge effects.
- Bright quenching property.

➤ Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	25	D-445
Viscosity index (VI)	100	D-2270
Flash point, °C	195	D-92
Pour point, °C	-6	D-97
Density @ 15 °C, Kg/m^3	870	D-1298
Copper corrosion @ 100 °C	Class 1a	D-130
Rust resistance	PASS	D-665 Method A

* Packaging

- Drum 208L.

Tractor and Agricultural Machinery Dual-Purpose Oil

IRANOL UTTO is formulated using a select semi-synthetic base oil and additives that provide anti-wear, anti-rust, and anti-oxidation protection.

Performance Levels

- **API GL-4**
- **Allison C-4**
- **ZF TE ML 06**
- **John Deere J20C**
- **Massey Ferguson M1135, M1143**

Applications

- Recommended for lubrication of transmissions, hydraulic systems, and power transfer in tractors, agricultural machinery, construction equipment, and mining machinery.

Advantages

- Excellent anti-wear and load-bearing properties.
- Superior protection against corrosion and wear, extending the life of gears and bearings.
- Thermal stability and excellent oxidation resistance, contributing to longer oil life.
- Ensure proper lubrication of all hydraulic and transmission components in tractors at low temperatures.

Typical physical characteristics

Characteristic	10W-30	80W	85W *	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	10	10	15	D-445
Viscosity index (VI)	145	145	110	D-2270
Flash point, °C	200	210	220	D-92
Pour point, °C	-36	-36	-24	D-97
Density @ 15 °C, Kg/m^3	870	860	890	D-1298

* Mineral base oil.

* Packaging

- Drum 208L.

Universal Tractor Oil

IRANOL STOU is formulated using a select semi-synthetic base oil and additives designed for use in tractor engines, gearboxes, and hydraulic systems.

Performance Levels

- **API CF-4**
- **API GL-4**
- **API CD/SE**
- **Massey Ferguson CMS M1139**
- **ACEA E2**
- **MB 228.1**
- **John Deere J27**
- **STOU Specification**

Applications

- For the lubrication of supercharged and turbocharged engines, gearboxes, differentials, and hydraulic systems in tractors and agricultural machinery.

Advantages

- Use of one oil for the lubrication of all parts of the tractor.
- Excellent anti-wear properties and prevents corrosion of engine parts.
- Suitable detergency and dispersion.
- Excellent oxidation resistance and Thermal stability.

Typical physical characteristics

Characteristic	10W-30	15W-40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	11	15.5	D-445
Viscosity index (VI)	130	130	D-2270
Flash point, °C	200	210	D-92
Pour point, °C	-33	-27	D-97
Density @ 15 °C, Kg/m^3	870	875	D-1298
TBN, mg KOH/mg	10	10	D-2896
CCS, cP	@ -25°C ≤7000	@ -20°C ≤7000	D-5293

* Packaging

- Pail 20L.
- Drum 208L.

IRANOL MF is produced using a paraffinic base oil derived from the fractional distillation of crude oil and appropriate additives.

Applications

- As an emolsifable fluid for lubrication and cooling in various metalworking and machining operations.

Advantages

- Stable emulsion formation.
- Excellent anti-rust, anti-foam, and anti-corrosion properties.
- Effective heat removal from the metalworking operation zone.
- Resistance to degradation and bacterial growth.
- Non-staining properties.
- Compatible with municipal water for emulation preparation (up to 300 ppm total hardness)
- Prevents seizing or welding of chips or workpieces to the tool.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	55	D-445
Emulsion Stability	PASS	-
pH of 5% solution in distilled water	8	-

* Packaging

- Drum 208L.

IRANOL CT-F1 is produced using a paraffinic base oil derived from the fractional distillation of crude oil and appropriate additives, containing active sulfur compounds, chlorine, fatty oil, and free of any inactive sulfur compounds. This product is used in its pure form without the need for dilution in water.

Applications

- For lubrication in various cutting and machining operations where a very smooth and polishes surface finish is desired.

Advantages

- Excellent anti-rust, anti-foam, and anti-corrosion properties.
- Long service life under operating conditions.
- Ability to remove heat from the cutting operation zone.
- Resistance to cold temperatures and prevention of additive separation during storage.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	34	D-445
Viscosity index (VI)	105	D-2270
Flash point, °C	200	D-92
Pour point, °C	-6	D-97
Density @ 15 °C, Kg/m^3	875	D-1298

* Packaging

- Drum 208L.

IRANOL MTS is produced using very high-quality paraffinic base oil derived from the fractional distillation of crude oil and hydrogenation process, as well as appropriate additives.

Performance Levels

- **DIN 51524 Part II**
- **DIN 51517 Part III**
- **US-Steel 224**
- **AGMA 9005 E02 (EP)**

Applications

- For lubricating machine tools, hydraulic machinery, sliding devices, industrial gears, and applications where the above performance levels are recommended.

Advantages

- Excellent ability against oxidation and heat.
- Excellent protection against rust and corrosion of parts.
- Excellent separability from water.
- High protection against wear and load-bearing capacity.

Typical physical characteristics

Characteristic	68	150	220	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	68	150	220	D-445
Viscosity index (VI)	95	95	95	D-2270
Flash point, °C	210	230	240	D-92
Pour point, °C	-12	-12	-12	D-97
Density @ 15 °C, Kg/m^3	875	880	890	D-1298
Copper corrosion	Class 1b			D-130
Water separation	PASS			D-1401

* Packaging

- Drum 208L.

IRANOL FL-S is an industrial flushing oil produced with high-quality group II base oil and appropriate additives.

Applications

- This product is a non-detergent flushing oil suitable for use in turbine, hydraulic or heat transfer systems and requires complete cleaning and draining of the fluid before recharging.

Advantages

- This oil does not contain detergents and can be safely used in systems where the absence of contamination from calcium and detergent materials or soap materials is required.
- Made from a hydrocarbon base and has undergone a severe hydrocracking process.
- This product has a very low sulfur content

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	30.5	D-445
Flash point, °C	225	D-92
Pour point, °C	-27	D-97
Density @ 15 °C, Kg/m^3	855	D-1298

* Packaging

- Drum 208L.

IRANOL FL is produced using a paraffinic base oil derived from the fractional distillation of crude oil.

Applications

- Suitable for flushing industrial lubrication systems, excluding turbines.
- It is recommended to use this oil as a flushing oil after installation and before initial startup, or when changing the oil.

Advantages

- It has good oxidation stability and natural detergency that helps to remove sludge and other contaminants.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	D-445
Viscosity index	90	D-2270
Flash point, °C	195	D-92
Pour point, °C	-6	D-97
Density @ 15 °C, Kg/m^3	870	D-1298

* Packaging

- Drum 208L.

IRANOL DOOK is produced using a paraffinic base oil derived from the fractional distillation of crude oil.

Applications

- It is used in the textile industry for lubricating textile spindles.

Typical physical characteristics

Characteristic	32	32-Abadan	46	68	100	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	32	46	68	100	D-445
Flash point, °C	200	200	205	218	230	D-92
Pour point, °C	-6	-3	-6	-6	-6	D-97
Density @ 15 °C, Kg/m^3	870	870	875	880	885	D-1298

* Packaging

- Drum 208L.

IRANOL GHATREH is produced using a paraffinic base oil derived from the fractional distillation of crude oil and appropriate additives with a low pour point property.

Applications

- A suitable oil for drop lubrication systems, lubricating shafts and pump housings for deep wells, and other simple general lubrication.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	32	D-445
Viscosity index	85	D-2270
Flash point, °C	195	D-92
Pour point, °C	-9	D-97
Density @ 15 °C, Kg/m^3	880	D-1298

* Packaging

- Drum 208.L

IRANOL SHOCK ABSORBER Shock absorber oil is produced using a semi-synthetic base oil and appropriate additives for use in all seasons.

Applications

- A suitable oil for automobile and motorcycle shock absorbers.

Advantages

- Excellent chemical stability.
- Resistance to wear and corrosion.
- Seal compatibility.
- Low pour point.
- Extends shock absorber life.

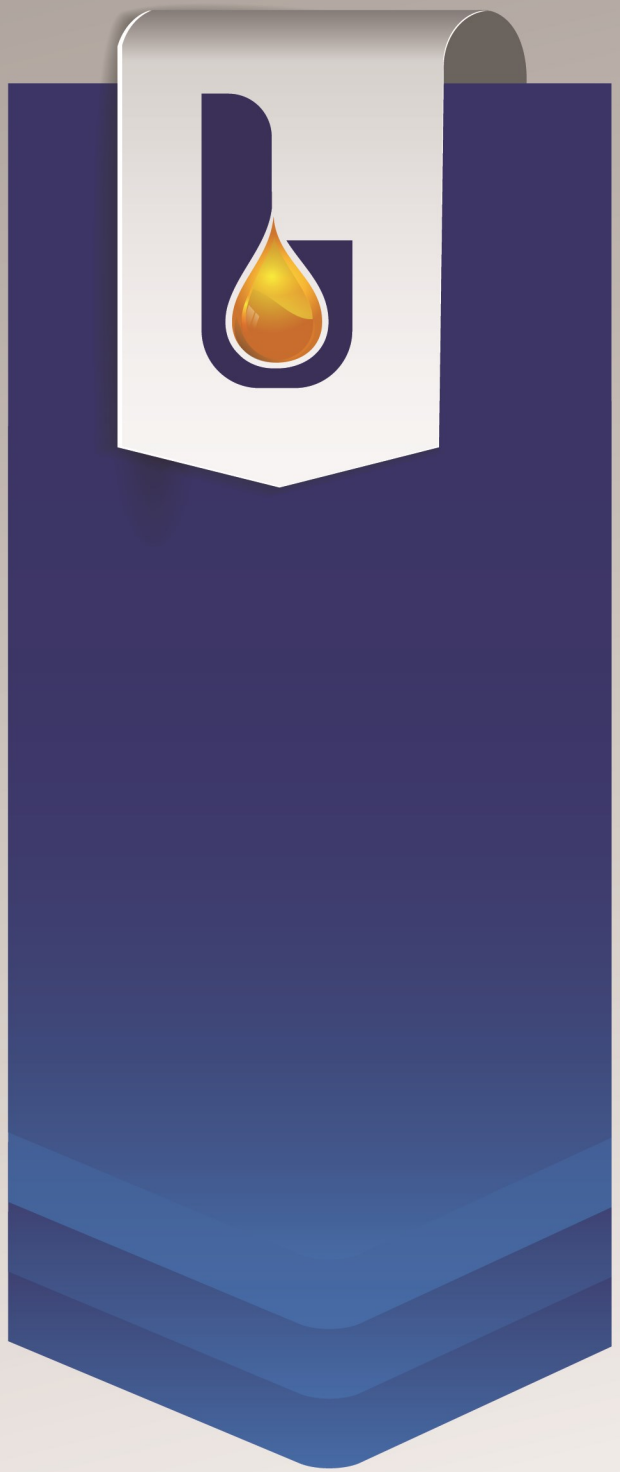
Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 40 °C, cSt	16	D-445
Kinematic viscosity @ 100 °C, cSt	4	D-445
Viscosity index	130	D-2270
Flash point, °C	150	D-92
Pour point, °C	-40	D-97
Density @ 15 °C, Kg/m^3	825	D-1298

* Packaging

- Drum 208L.

Process Oil



IRANOL DAE is a suitable aromatic by-product for use in the production of tire, strip, and rubber parts industries.

Applications

- This compound is used as a raw material for tire manufacturing, automotive parts, rubber shock absorbers, shoe soles, industrial hoses, cable covers, pedestrian walkway and pavement materials, or as a solvent for sealants, adhesives, polishes, and carbon black.

Advantages

- Low volatility
- High solubility in hydrocarbon and oily solvents
- Improves the milling and mixing process of rubbers
- Very low staining
- Compatibility with elastomers

Typical physical characteristics

Characteristic	10	11	20	40	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	10	8	20	40	D-445
Flash point, °C	215	200	240	265	D-92
Pour point, °C	9	9	15	15	D-97
Density @ 15 °C, Kg/m^3	1000	1010	1005	1020	D-1298
Aniline point, °C	35	30	30	50	IP-2
Sulfur content, Wt%	3	5	4	5	D-2622
Carbon type, % C_A C_N C_P	 55 1 44	 60 1 39	 40 15 45	 50 5 45	D-3238

* Packaging

- Drum 208L.
- Bulk

IRANOL RAE is a process oil with an aromatic base, derived from the solvent extraction of the heaviest oily fraction of vacuum distillation, suitable for use in the production of tire, strip, and rubber parts industries.

Applications

- This compound is used as a softener, diluent, and filler in the production of rubber and rubber parts in order to facilitate the process or improve the efficiency of the final product

Advantages

- Good solubility in hydrocarbon and oily solvents.
- Improves the milling and mixing process of rubbers .

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	60	D-445
Flash point, °C	300	D-92
Pour point, °C	+20	D-97
Density @ 15 °C, Kg/m^3	995	D-1298
Aniline point, °C	65	IP-2

* Packaging

- Drum 208L.
- Bulk

IRANOL MES is a process oil with a paraffinic base, derived from the solvent extraction of the heaviest oily fraction of vacuum distillation, suitable for use in the production of tire, strip, and rubber parts industries.

Applications

- This compound, without harmful creosote materials, is used as a softener, diluent, and filler in the production of rubber and rubber parts in order to facilitate the process or improve the efficiency of the final product.

Advantages

- Low amount of waste in the rubber production process
- Good elastic properties in rubber production
- Good flexibility at low temperatures
- Increased tire life and quality.

Typical physical characteristics

Characteristic	MES-L	MES-T	MES-H	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	13	4.5	29	D-445
Flash point, °C	230	190	280	D-92
Density @ 15 °C, Kg/m^3	890	890	900	D-1298
Aniline point, °C	105	80	118	IP-2
Viscosity Gravity Constant (VGC)	0.820	0.850	0.850	D-2501

* Packaging

- Drum 208L.
- Bulk

IRANOL TDAE is an environmentally friendly process oil with an aromatic base and a very low content of PCA compounds, suitable for use in the production of tire, strip, and rubber parts industries.

Applications

- This compound, without harmful carbon materials, is used as a softener, diluent, and filler in the production process of rubber and rubber parts in order to facilitate the process or improve the efficiency of the final product.

Advantages

- Conforming to up-to-date international standards (EU 2009/552/EC).
- Low amount of waste in the rubber production process.
- Good elastic properties in rubber production.
- Suitable resistance to abrasion.
- Good flexibility at low temperatures.
- Increase tire durability and performance.
- Reduced fuel and energy costs.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	15	D-445
Flash point, °C	240	D-92
Pour point, °C	+6	D-97
Density @ 15 °C, Kg/m^3	930	D-1298
Aniline point, °C	75	IP-2
Refractive index @ 20 °C	> 1.5	D-1218
Sulfur content, Wt%	2	D-4294

* Packaging

- Drum 208L.
- Bulk

Green Process Oil

IRANOL TRAE is an environmentally friendly process oil with an aromatic base and a very low content of PCA compounds, suitable for use in the production of tire, strip, and rubber parts industries. This product is obtained from the extraction operation with a solvent of the heaviest oily fraction of vacuum distillation.

Applications

- This compound, without harmful carbon materials, is used as a softener, diluent, and filler in the production process of rubber and rubber parts in order to facilitate the process or improve the efficiency of the final product.

Advantages

- Conforming to up-to-date international standards (EU 2009/552/EC).
- Low amount of waste in the rubber production process.
- Good elastic properties in rubber production.
- Suitable resistance to abrasion.
- Good flexibility at low temperatures.
- Reduced fuel and energy costs.

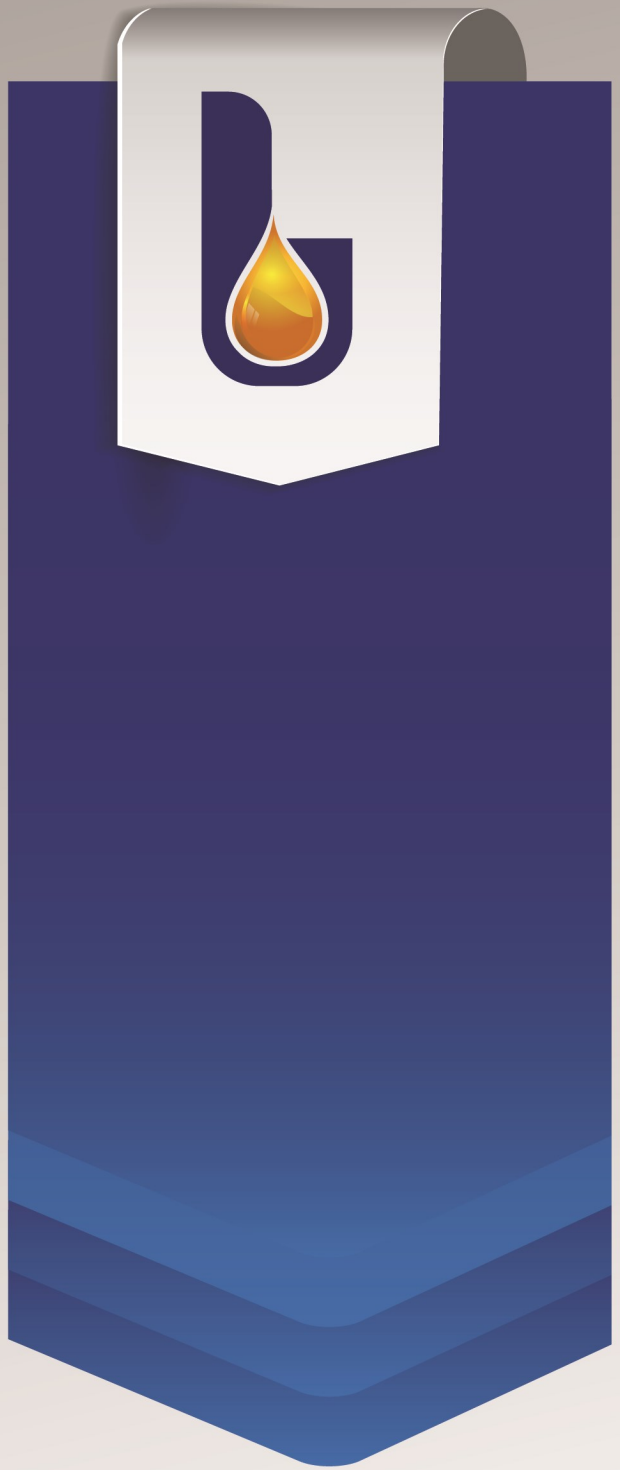
Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Kinematic viscosity @ 100 °C, cSt	40	D-445
Flash point, °C	250	D-92
Pour point, °C	+42	D-97
Density @ 15 °C, Kg/m^3	950	D-1298
Aniline point, °C	70	IP-2
Refractive index @ 20 °C	1.52	D-1218
Sulfur content, Wt%	3	D-4294

* Packaging

- Drum 208L.
- Bulk

Grease



Lithium-Based Grease

IRANOL LIMA is a multi-purpose lithium-based grease formulated with high-quality mineral base oils and lithium hydroxy stearate, along with special additives for industrial and automotive applications.

Performance Levels

- **INSO 142-1**

Applications

- Lubrication of bearings and ball and flat joints of vehicles.
- Lubrication of gears and gearboxes.
- Electric motors.
- Compressors and pumps
- Conveyor wheel systems

Advantages

- High resistance to water washout.
- Excellent mechanical stability.
- Oxidation resistance.
- Operating Temperature Range: -20°C to +120°C.

Typical physical characteristics

Characteristic	NLGI 1	NLGI 2	NLGI 3	Test method ASTM
Thickener base	Lithium	Lithium	Lithium	D-3340
Weight loss on heat, Wt%	0.5	0.5	0.5	D-972
Dropping point, °C	185	185	185	D-566
Number of hard particles	10	10	10	D-1404
Worked penetration @ 25 °C, 0.1 mm	310-340	265-295	220-250	D-217
Water washout resistance @ 80 °C, Wt%	5	5	5	D-1264
Oxidation resistance, pressure drop after 100 hours, kg/cm^2	0.5	0.5	0.5	D-942
Corrosion prevention property @ 52 °C, 48 hours	PASS			D-1743
Copper strip corrosion @ 100 °C (24 hours)	1a			D-4048

* Packaging

- Container 10 lb
- Container 35 lb
- Drum 180 kg

Extreme Pressure Lithium-Based Grease

IRANOL LIMA EP, as a multi-purpose lithium soap base grease with high mechanical load-bearing capacity, is formulated using mineral base oil, lithium hydroxy stearate, and appropriate additives for high-pressure applications. It is designed for various industrial lubrication needs.

Performance Levels

- **INSO 5611**

Applications

- Lubrication of bearings and ball and flat joints of vehicles.
- Lubrication of chassis, gears and gearboxes.
- Electric motors, Compressors, pumps and conveyor wheel systems.
- Suitable for general use in industries, transportation, agriculture, and road equipment.

Advantages

- High-pressure resistance
- High resistance to water washout.
- Excellent mechanical and thermal stability.
- Oxidation resistance.
- Operating Temperature Range: -20°C to +120°C.

Typical physical characteristics

Characteristic	NLGI 1	NLGI 2	NLGI 3	Test method ASTM
Thickener base	Lithium	Lithium	Lithium	D-3340
Weight loss on heat, Wt%	1	0.5	0.5	D-972
Dropping point, °C	185	185	185	D-566
Number of hard particles	10	10	10	D-1404
Worked penetration @ 25 °C, 0.1mm	310-340	265-295	220-250	D-217
Water washout resistance @ 80 °C, Wt%	5	5	5	D-1264
Oxidation resistance @ 99 °C, pressure drop after 100 hours, kg/cm^2	0.5	0.5	0.5	D-942
Corrosion prevention property @ 52 °C, 48 hours	PASS			D-1743

* Packaging

- Container 35 lb
- Drum 180 kg

IRANOL CAMA is a combination of mineral base oil, calcium thickener, and appropriate additives, designed for various general application and lubrication of different machinery.

Performance Levels

- **INSO 142-1**

Applications

- Lubrication of chassis and water pumps in vehicles.

Advantages

- High resistance to water washout.
- Operating Temperature Range: -20°C to +120°C.

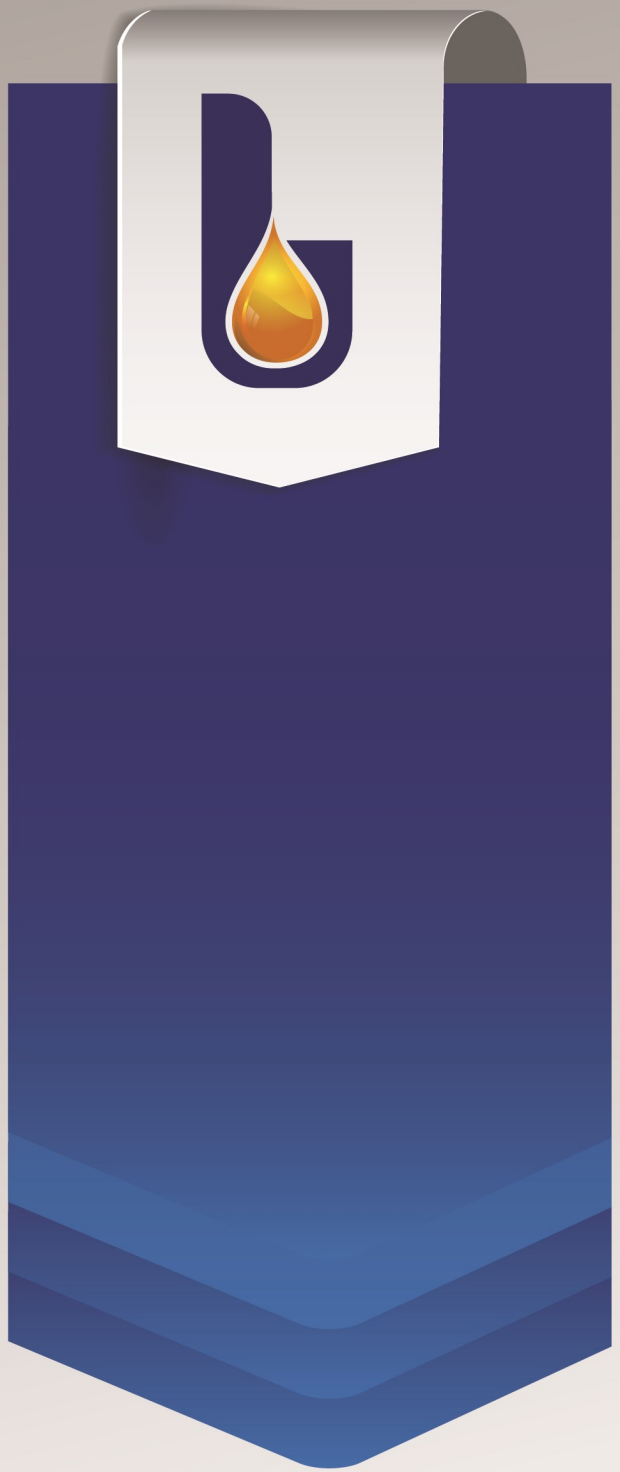
Typical physical characteristics

Characteristic	NLGI 2	NLGI 3	Test method ASTM
Thickener base	Calcium	Calcium	D-3340
Free Acid as Oleic Acid, Wt%	0.5	0.5	D-128
Free alkalinity as Potassium Hydroxide, Wt%	0.1	0.1	D-128
Dropping point, °C	95	95	D-566
Number of hard particles	40	40	D-1404
Worked penetration @ 25 °C, 0.1 mm	265-295	220-250	D-217
Copper strip corrosion @ 75 °C(24 hours)	1a		D-4048
Corrosion prevention property @ 52 °C, 48 hours	PASS		D-1743
Water washout resistance @ 39 °C, Wt%	1	1	D-1264

* Packaging

- Container 10 lb
- Container 35 lb
- Drum 180 kg

Anti Freeze, Anti Boil & Anti Corrosion



Engine Coolant (Antifreeze, Anti-Boil, Anti-Corrosion)

IRANOL AF-G is produced based on ethylene glycol and with the use of appropriate additives to prevent corrosion of internal engine parts and rusting.

➤ Performance Levels

- **ASTM D-3306**
- **INSO 338**

➤ Applications

- Designed for use in light gasoline and diesel vehicles, also suitable for internal combustion engines in industry whose cooling system requires a corrosion and rust inhibitor.

➤ Advantages

- Usable in all seasons.
- Protects cooling systems against rust and corrosion.
- Excellent heat transfer property.
- Compatible with cooling system filters, gaskets, hoses and rubber parts.

➤ Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Density @ 15.5 °C, g/cm^3	1.135	D-1122
Freezing point of 25% solution, °C	-12.5	D-1177
Freezing point of 33.3% solution, °C	-18	D-1177
Freezing point of 50% solution, °C	-37	D-1177
Boiling point, °C	163	D-1120
pH of 50% solution	7.5	D-1287
Reserve alkalinity, ml	16	D-1121

* Packaging

- 1L. Container Carton (12×1L)
- 2L. Container Carton (8×2L)
- 4L. Container Carton(4×4L)
- Drum 208L.

Ready to Use Engine Coolant (Antifreeze, Anti-Boil, Anti-Corrosion)

IRANOL AVAN is produced based on ethylene glycol (50% v/v mixture with water) and with the use of appropriate additives to prevent corrosion of internal engine parts and rusting.

Performance Levels

- **ASTM D-3306**
- **INSO 338**

Applications

- Designed for use in light gasoline and diesel vehicles, also suitable for internal combustion engines in industry whose cooling system requires a corrosion and rust inhibitor.

Advantages

- Usable in all seasons.
- Protects cooling systems against rust and corrosion.
- Ready to use and does not require mixing with water.
- Excellent heat transfer property.
- Compatible with cooling system filters, gaskets, hoses and rubber parts.
- Operating Temperature Range: -40 °C to 100 °C

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Density @ 15 °C, g/cm^3	1.065	D-1122
Freezing point of 50% solution (undiluted), °C	-36	D-1177
Boiling point of 50% solution (undiluted), °C	108	D-1120
pH of 50% solution (undiluted)	7.5	D-1287
Reserve alkalinity, ml	8	D-1121

* Packaging

- 3.5L. Container Carton (4×3.5L)

Organic Engine Coolant (Antifreeze, Anti-Boil, Anti-Corrosion)

IRANOL COOLMAX is formulated using ethylene glycol and a blend of suitable additives, free from nitrates, phosphates, silicates, and other inorganic salts and is produced from organic compounds.

Performance Levels

- **ASTM D-3306, D-4985**

Applications

- Designed for use in all types of light duty vehicles, (passenger cars, vans, light trucks, and minibuses) and heavy-duty vehicles (trailers, trucks, and buses).

Advantages

- Usable in all seasons with long-lasting performance, reducing the need for frequent changes (long life).
- Protects cooling systems against rust and corrosion.
- Excellent heat transfer property.
- Compatible with cooling system filters, gaskets, hoses and rubber parts.
- Produced in red color.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Density @ 15.5 °C, g/cm^3	1.12	D-1122
Freezing point of 25% solution, °C	-12.5	D-1177
Freezing point of 50% solution, °C	-37	D-1177
Boiling point, °C	163	D-1120
pH of 50% solution	7.5	D-1287
Reserve alkalinity, ml	5	D-1121

* Packaging

- 1L. Container Carton (12×1L)

Organic Engine Coolant (Antifreeze, Anti-Boil, Anti-Corrosion)

IRANOL HYPER is formulated using ethylene glycol and a blend of suitable additives, free from nitrates, phosphates, silicates, and other inorganic salts and is produced from organic compounds.

Performance Levels

- **ASTM D-3306, D-4985**

Applications

- Designed for use in all types of heavy-duty diesel and gasoline vehicles, and is also suitable for industrial internal combustion engines whose cooling systems require protection against corrosion and rust.

Advantages

- Has a general formulation for light gasoline and diesel vehicles in accordance with the above standards.
- Usable in all seasons.
- Protects cooling systems against rust and corrosion.
- Excellent heat transfer property.
- Compatible with cooling system filters, gaskets, hoses and rubber parts.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Density @ 15 °C, g/cm^3	1.12	D-1122
Freezing point of 25% solution,°C	-12.5	D-1177
Freezing point of 33.3% solution, °C	-18	D-1177
Freezing point of 50% solution, °C	-37	D-1177
Boiling point, °C	163	D-1120
pH of 50% solution	7.5	D-1287
Reserve alkalinity, ml	5	D-1121

* Packaging

- 5L. Container Carton (4×5L)
- Pail 20L.
- Drum 208L.

Engine Coolant (Antifreeze, Anti-Boil, Anti-Corrosion)

IRANOL RADIAN is a premium anti-boil and anti-corrosion coolant formulated using ethylene glycol and a blend of suitable additives, containing organic compounds, free of nitrates and containing silicate.

Performance Levels

- **MAN 324-NF**
- **BMW N 600 69.0**
- **German Army TL 6850-0038/1**

Applications

- Designed for use in all types of heavy and light-duty gasoline and diesel vehicles, and is also suitable for industrial internal combustion engines whose cooling systems require a special inhibitor against corrosion and rust.

Advantages

- Nitrate-free and silicate-containing, in accordance with MAN standard NF type.
- Excellent heat transfer property.
- Compatible with cooling system filters, gaskets, hoses and rubber parts.
- Long life and usable in all seasons.

Typical physical characteristics

Characteristic	Quantity	Test method ASTM
Density @ 20 °C, g/cm^3	1.12	D-4052
Water content, Mass%	5	D-1123
pH of 50% solution @ 26 °C	8	D-1287
Freezing point of 50% solution,°C	-36	D-1177
Boiling point, pure @ 760mmHg, °C	150	D-1120
Boiling point of 50% solution in distillated water @ 760mmHg, °C	108	D-1120
Reserve alkalinity, ml	10	D-1121

* Packaging

- Pail 20L.
- Drum 208L.

محرک چرخش

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SCAN TO VISIT

تماس با کارشناس فروش

مشاهده محصولات در سایت

برای استعلام قیمت، اعلام موجودی و ثبت سفارش تکی و عمده گریس IRANOL با کارشناسان محرک چرخش تماس بگیرید.

تمامی حقوق کاتالوگ متعلق به سازنده IRANOL است

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