FOCUS ON

ZIC

PRODUCT CATALOG

SK enmove

FLUID ENGINEERING TECHNOLOGY

SK enmove is at the center of latest developments
in not only fuel efficiency but also energy efficiency.

As a fluid solution provider that constantly works toward a better future,
SK enmove ZIC is one step ahead for the next big jump.

CONTENTS

Introducing
THE NEW ZIC

No. 1 premium engine oil brand in Korea, ZIC is now reborn as a fluid solution brand.

From the experience of commercializing Group III base oil for the first time and maintaining its position as the No. 1 premium engine oil company, ZIC is Korea's first-ever brand launched in the lubricants market.

Leading trends in the premium lubricants market and making endless efforts in fluid engineering allowed us to go beyond fuel efficiency and reach energy efficiency. ZIC is now starting a new chapter as a fluid solution brand.

NEW BRAND ROLE

FLUID SOLUTION

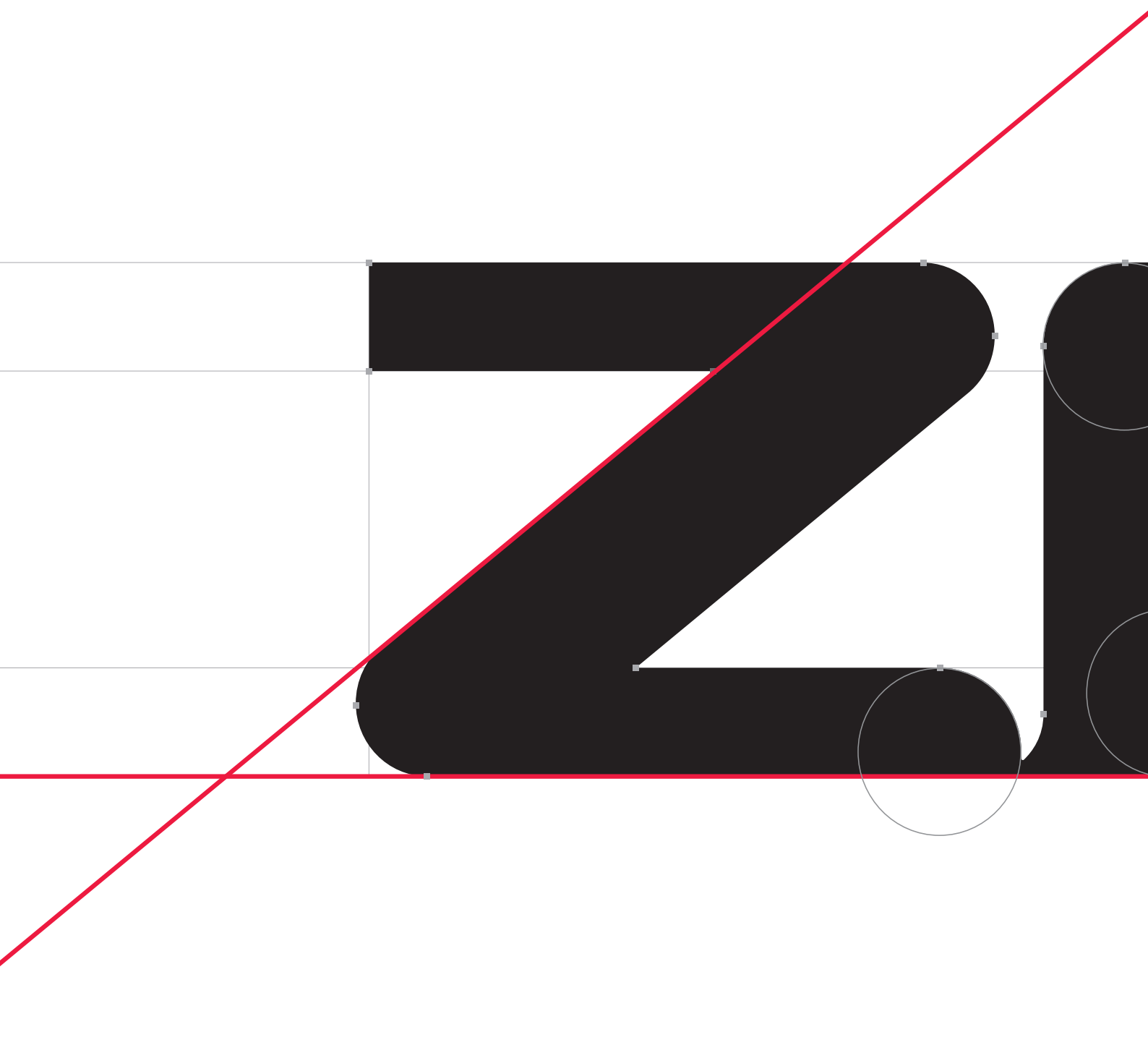
In response to the standards of the new era, the brand offers solutions that flexibly meet customer needs, creating a sustainable flow for the future.

NEW BRAND SLOGAN

CREATING NEW FLOW

ZIC's DNA, a constant innovation, expressing our vision to create a new era of lubricants and fluid engineering.

NEW IDENTITY & GRID SYSTEM



Z DIAGONAL LINE

The curved lines that form a part of the wordmark represent organic energy and an attempt to generate a virtuous cycle, as well as the ultimate goal. The straight lines that stretch out from side to side signify ZIC's commitment to providing and leading to new solutions.

HISTORY OF ZIC

From pioneering Korea's first premium fully synthetic engine oils to developing ultra-low viscosity engine oils to meet the demands of the new era, ZIC has made its mark by evolving and leading the new wave of mobility since its establishment through constant R&D and technological innovation.

Just as captured by the company's slogan, 'Creating New Flow', ZIC is striving towards a more sustainable future.

2003
Established SK enmove China

2008
Launched low-viscosity ZIC 0W

2012
Started operations of HBO plant

Started operations of the Tianjin plant for lubricants

2013
Established SK enmove Russia

2015
Marked 20th anniversary of ZIC, New ZIC 2.0

1963

SK Co. Ltd. started the lubricants business

1968

Produced Korea's first premium lubricants

1985

Established Korea's first R&D center focused on lubricants

1995

Launched ZIC

2001

Launched 100% synthetic engine oil

2018

Signed a sponsorship agreement with FC Barcelona

2019

Launched ZIC ZERO

2023

Established ZIC's brand identity, New ZIC 3.0

KEY POINT 01. QUALITY

Premium base oil

: the key to high-quality engine oil

The latest engine oils blend base oil and carefully selected additives at a ratio of 7 to 3.
As such, the quality of the key ingredient, the base oil, is of utmost importance.

One of the biggest strengths of ZIC is its use of YUBASE, which accounts for a 40% market share in the global market for premium base oil (Group III, Group III+), and YUBASE+.

YUBASE provides a greater viscosity index than general base oil (Group I, Group II, Group II+) and is also considered to be more environmentally friendly as impurities are more effectively removed.

YUBASE /YUBASE+

Base Oil Categories

GROUP III/III+*

Sulfur content of 0.03% or less

0.03%

Hydrocarbon content of 90% or higher

90%

Viscocity Index of 120/130 or higher

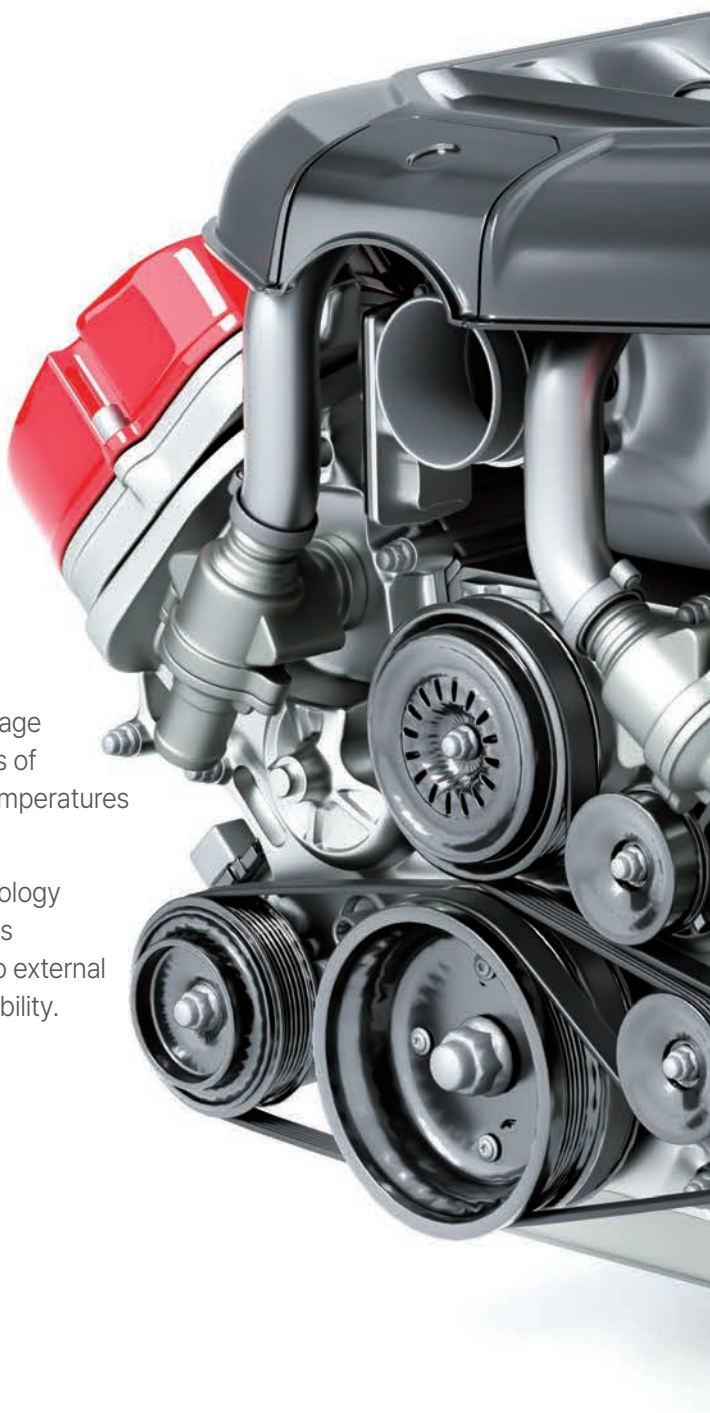
120/130

*Following the classification by API, mineral-based engine oil extracted from petroleum is categorized as GROUP I to III.
The higher the number in the grade, the fewer impurities, the higher the hydrocarbon content,
and the greater the viscosity index, resulting in a more stable lubricants.

KEY POINT 02. PERFORMANCE

Maximized Engine Performance

: outstanding in all circumstances

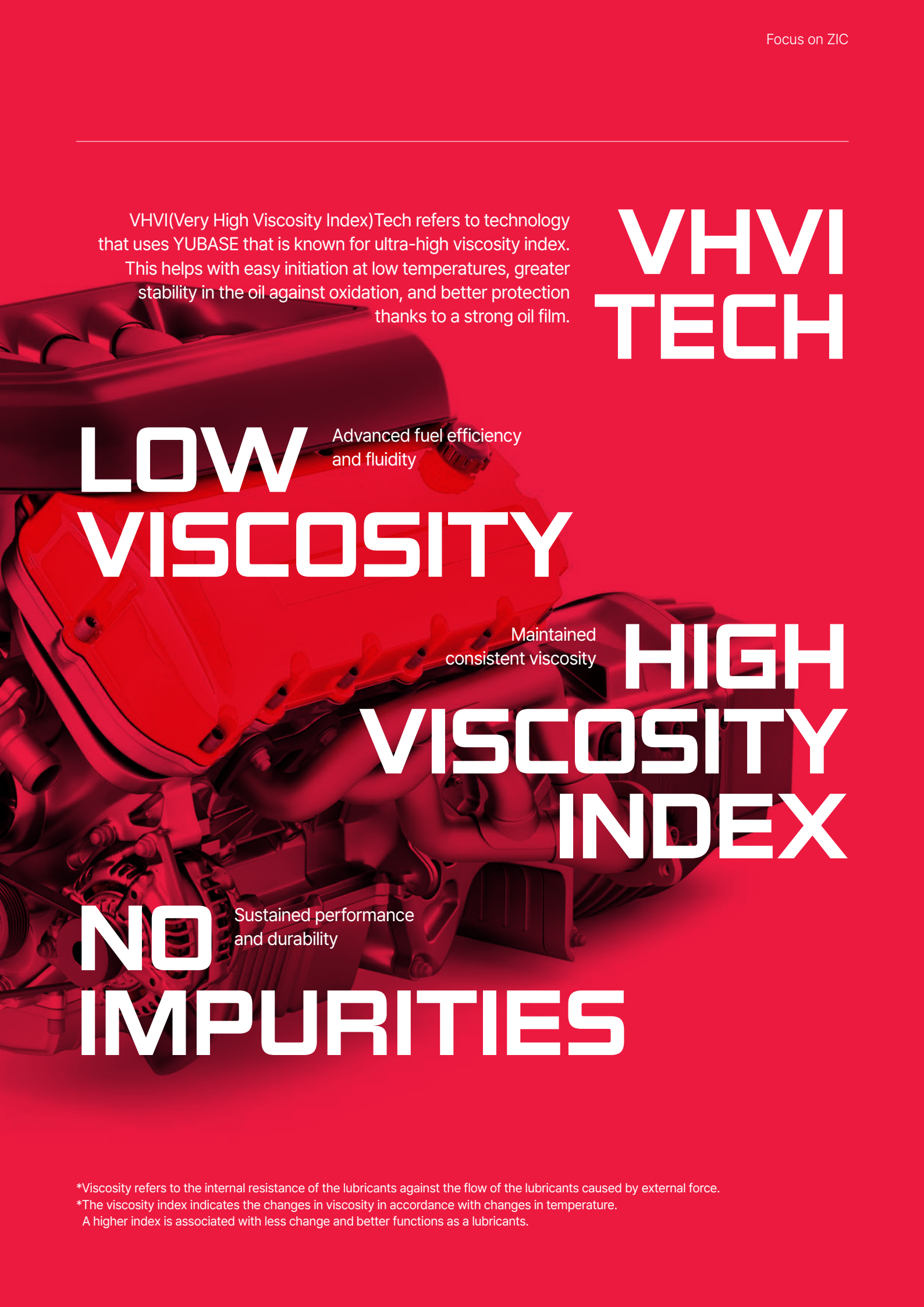


What's special about ZIC's solution is that it maintains the advantage of minimizing viscosity changes while maximizing the advantages of low-viscosity engine oil, which helps engines start even at low temperatures and improves fuel efficiency.

ZIC's engine oil is formulated with VHVI Tech, a proprietary technology from SK enmove. This pioneering engineering technology reduces internal friction during engine operation and controls sensitivity to external temperature changes, maximizing both engine efficiency and stability.

VHVI TECH

VHVI(Very High Viscosity Index)Tech refers to technology that uses YUBASE that is known for ultra-high viscosity index. This helps with easy initiation at low temperatures, greater stability in the oil against oxidation, and better protection thanks to a strong oil film.



LOW VISCOSITY

Advanced fuel efficiency and fluidity

HIGH VISCOSITY INDEX

Maintained consistent viscosity

NO IMPURITIES

Sustained performance and durability

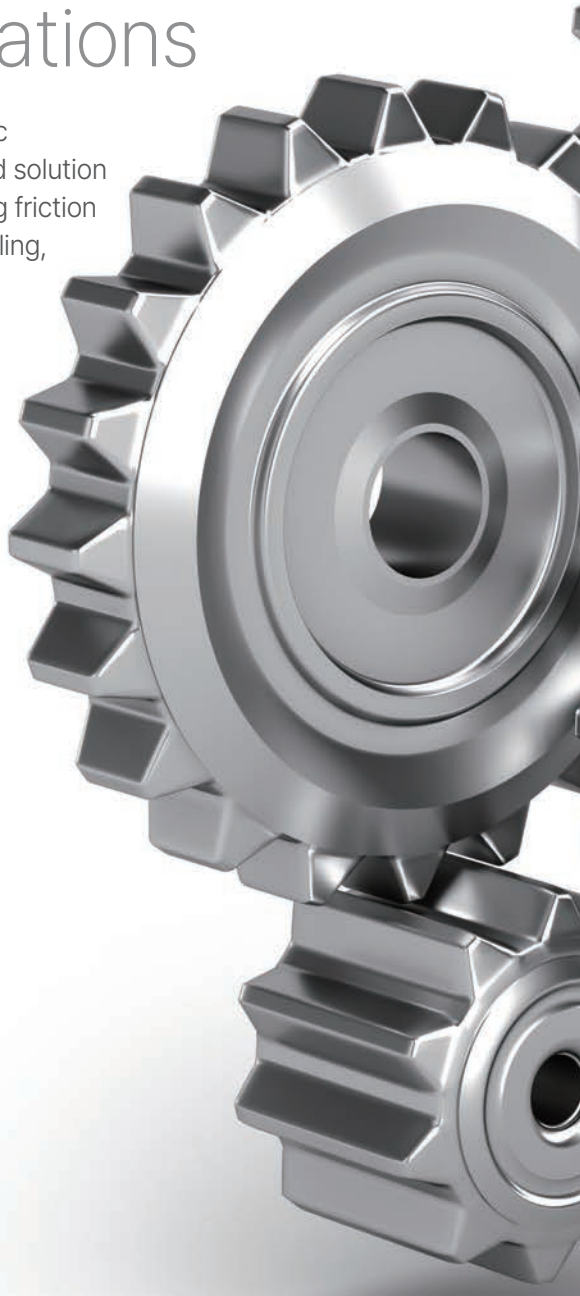
*Viscosity refers to the internal resistance of the lubricants against the flow of the lubricants caused by external force.
*The viscosity index indicates the changes in viscosity in accordance with changes in temperature.
A higher index is associated with less change and better functions as a lubricants.

KEY POINT 03. USABILITY

An optimal fluid solution
: with wide-ranging applications

Lubricants are developed using carefully selected additives to suit specific environments and requirements. ZIC's lubricants represent an optimal fluid solution that effectively delivers various functions required for lubrication, including friction reduction, wear prevention, weight distribution, cooling, cleaning, and sealing, through an optimal design.

ZIC develops tailored solutions that comprehensively consider factors such as the pressure and temperature exerted on the machinery, as well as the environment in which the oil is applied.
ZIC's product range extends not only to conventional automobile engines but also to gear oils for electric vehicles, industrial applications, and the renewable energy sector.



ZIC FLUID SOLUTION

Automotive
Engine Oil

Marine Lubricants

Transmission

ZIC

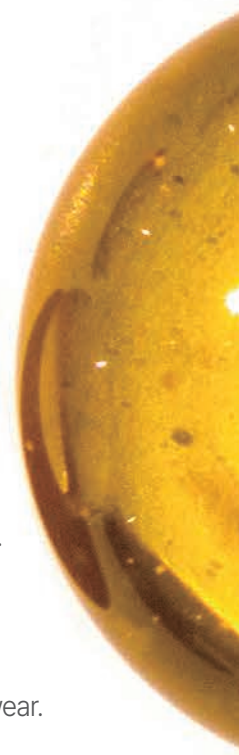
Greases

Hydraulic

Industrial

KEY POINT 04. SUSTAINABILITY

High-Efficiency Engine Oil
: for modern demand

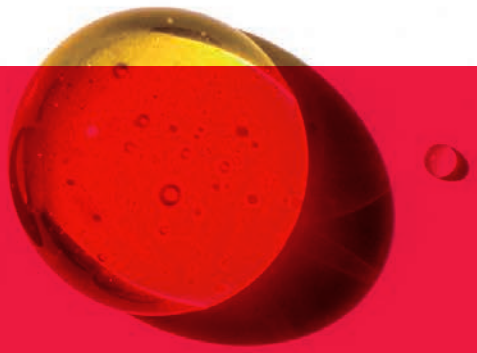


Reduction in carbon emissions is a global initiative. To achieve this goal, it is essential to use ultra-low viscosity engine oil, which reduces fuel consumption and exhaust emissions.

There is a general misconception in the market that lower viscosity leads to increased engine wear and tear. However, ZIC possesses the technological expertise to provide low-viscosity engine oils effectively protecting the engine.

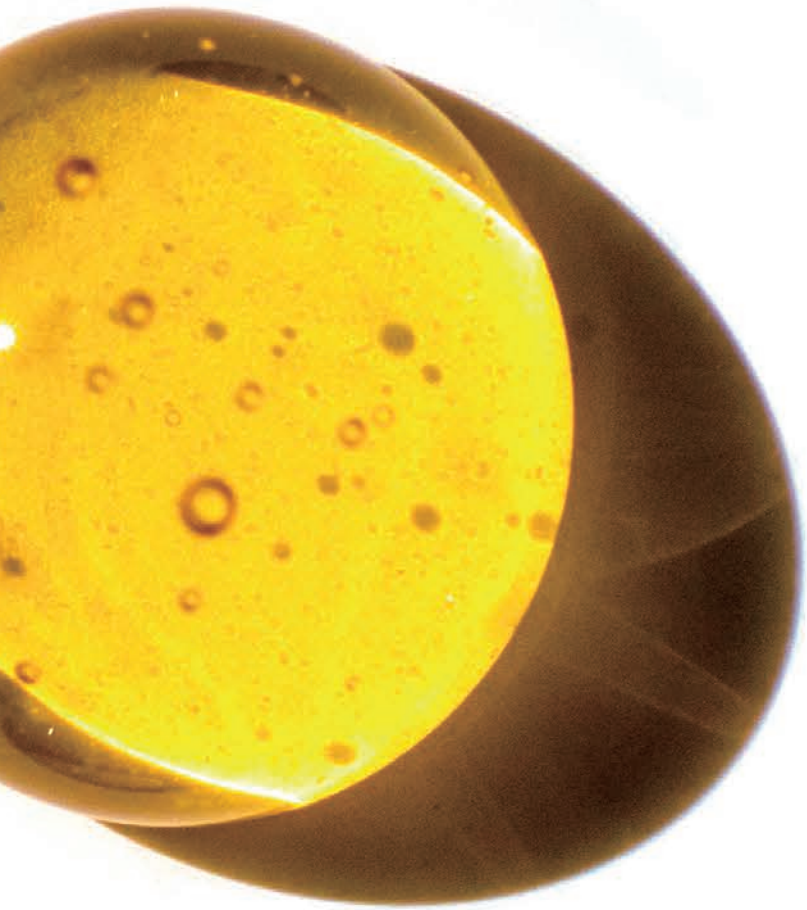
ZIC's engine oil aims to demonstrate the feasibility of low-carbon, high performance, and outstanding fuel efficiency through continuous R&D on highly refined base oils and technologies to reduce friction and wear.

ZIC's engine oils have already met the strict standards of ACEA of Europe, and API and ILSAC of the USA. They are also compliant with the quality specifications of reputable global automakers of Europe, the USA and Korea, presenting a new way forward for engine oils.



ZIC TOP

ZIC X9



API SP | ILSAC GF-6

ACEA C7, C6/C5, C2/C3

Compliant with the latest specifications of global automakers

Mercedes Benz **Volkswagen** **BMW**

Porsche **GM**

ZIC GLOBAL NETWORK

ZIC has global network across over 60 countries, offering more customers the opportunity to experience high-efficiency premium lubricants.
This global network serves as a basis for better understanding the distinct needs of customers to offer more tailored solutions.

ZIC Global Capacity

ZIC has its own blending plants in Korea and Tianjin, China, with a daily maximum production capacity of 1,217,940 liters, in addition to partner production plants worldwide with a capacity of 318,000 liters.
ZIC, one of the most renowned engine oil brands in Korea, is taking a step further by expanding its global presence and emerging as an industry leader.

Ulsan, Korea | Established in 1968

820,440L/Day

205,110,000L/Year

Tianjin, China | Established in 2012

397,500L/Day

99,375,000L/Year

Total

1,217,940L/Day

Maximum daily production capacity × operating days

North America

- Canada
- Mexico
- USA

South America

- Brazil
- Bolivia
- Chile
- Colombia
- Peru


CIS
· Armenia
· Azerbaijan
· Belarus
· Kazakhstan
· Kyrgyzstan
· Moldova
· Tajikistan
· Russia
· Uzbekistan
Europe
· Czechia
· France
· Germany
· Greece
· Poland
· Slovakia
· Turkey
East Asia
· China
· Hong Kong
· Japan
· Mongolia
· Taiwan
Oceania
· Australia
· Fiji
· Guam
· New Zealand
· Saipan
Middle East
· Bahrain
· Iraq
· Libya
· Oman
· UAE
South Asia
· Bangladesh
· Nepal
· India
· Pakistan
South East Asia
· Cambodia
· Laos
· Malaysia
· Singapore
· Thailand
· The Philippines
· Vietnam
Africa
· South Africa

ZIC PRODUCT LINE-UP

PCMO | HDDEO | MCO | DRIVELINE FLUIDS | AUTOMOTIVE GEAR OIL | INDUSTRIAL OIL

ZIC PRODUCT LINE-UP

PCMO

Racing

TOP

TOP FS

TOP LS

X7

X7 FE

X7 LS

X7 HYBRID

X7 DIESEL

HDDEO

ULTRA

X9000

X8000

Application of ZIC

PCMO | HDDEO

X9

X9 FS

X9 LS

X9 HYBRID

X5

X5 DIESEL

X3

X3 DIESEL

X7000

X6000

X5000

X3000

ZIC PRODUCT LINE-UP

MCO

M9 RACING EDITION

M9 4T

M9 4AT

M7 4T

DRIVELINE FLUIDS

ATF 3

ATF D 6

ATF XP 3/ SP 4

AUTOMOTIVE GEAR OIL

Application of ZIC

MCO | DRIVELINE FLUIDS | AUTOMOTIVE GEAR OIL

M7 4AT

M5 4T

M5 4AT

M5 2T

M3 4T

ATF MULTI

ATF MULTI LF

CVTF MULTI

DCTF MULTI

G-5

G-EP

G-FF

ZIC PRODUCT LINE-UP

INDUSTRIAL

SUPERVIS AW

SUPERVIS X

VEGA

SUPERMAR TP

MARINE 2T

UTF

Application of ZIC

INDUSTRIAL OIL

SUPER GEAR EP

TURBINE OIL

COMPRESSOR OIL

SUPERMAR CYL

SUPER A

DOT

CLEANSER

ROYAL GREASE

CG GOLD

CG EP

WBG

CG HT

ZIC RACING
0W-40 / 0W-30 / STD 5W-30

The Ultimate Fully Synthetic Engine Oil for Advanced Driving

FULLY SYNTHETIC / PAO + Alkylated Naphthalene | PCMO

GENERAL CHARACTERISTICS

- Unparalleled engine protection and exceptional stability at high speeds ensure peak performance
- Unleash the true potential of your engine with ZIC Racing's superior performance
- Elevate your driving experience to new heights with premium engine oil, ZIC Racing

DESCRIPTION

ZIC Racing is a fully synthetic motor oil meticulously crafted to experience the pinnacle of engine performance with cutting-edge additive technology combined with application of Group V and Group IV base oils. It was engineered with 6,000 cc stock car technology to ensure exceptional performances of engine protection and high speed stability required for extreme track driving. ZIC Racing also meets the standards of automakers and is suitable for all modern vehicles in everyday driving.

SPECIFICATION

Racing 0W-40	Racing 0W-30	Racing STD 5W-30
• ACEA A3/B4	• ACEA C3	• ACEA C3, API SN • Meets or exceeds MB 229.51, BMW LL-04

RECOMMENDATIONS

- Recommendation for track driving as well as dynamic daily driving
  0W-40 Gasoline/Diesel engines (without DPF/SCR)
  0W-30, STD 5W-30 Gasoline/Diesel engines (with DPF/SCR)

TYPICAL PROPERTIES

SAE Grade	0W-40	0W-30	STD 5W-30
Density, g/cm^3	0.844	0.844	0.852
Kinematic Viscosity at 40˚C, cSt	76.3	67.8	71.2
Kinematic Viscosity at 100˚C, cSt	13.23	12.03	12.08
Viscosity Index	177	175	167
Total Base Number (TBN), mgKOH/g	10.6	7.9	7.8
Flash Point, °C	230	234	226
Pour Point, °C	-54	-48	-36
CCS, cP	5,600(-30˚C)	5,600(-30˚C)	6,000(-30˚C)
MRV, cP	25,000(-35˚C)	20,000(-35˚C)	29,000(-35˚C)
HTHS Viscosity at 150˚C, cP	3.8	3.6	3.6

ZIC TOP 0W-40

PAO-contained Fully Synthetic Engine Oil for The Next Generation

PAO FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Excellent wear protection for extended engine life
- Maximizing acceleration and performance in extreme driving conditions
- Outstanding sludge control to keep the engine clean
- Enhanced friction property and low temperature fluidity to support fuel efficiency

DESCRIPTION

ZIC TOP is a fully synthetic motor oil of ultimate performance, launched as the flagship tier of ZIC products. ZIC TOP 0W-40 is formulated with PAO-contained base oils and cutting-edge additive technology. It helps extend engine life by protecting against wear and corrosion. ZIC TOP 0W-40 also provides outstanding engine performance under the most severe operation conditions and keeps the engine clean and powerful. In addition, it has excellent low temperature fluidity to enhance engine startability and fuel efficiency.

SPECIFICATION

TOP 0W-40

- ACEA A3/B4, API SP
- Approved by MB-Approval 229.5/229.3, VW 502.00/505.00
- Meets or exceeds BMW LL-01; RN 0700/0710; Ford WSS-M2C937A

RECOMMENDATIONS

- Recommended for Gasoline, Diesel (without DPF/CPF/SCR) and LPG engines

TYPICAL PROPERTIES

SAE Grade	0W-40
Density, g/cm^3	0.843
Kinematic Viscosity at 40˚C, cSt	75.0
Kinematic Viscosity at 100˚C, cSt	13.43
Viscosity Index	183
Total Base Number (TBN), mgKOH/g	11.1
Flash Point, °C	232
Pour Point, °C	-48
CCS, cP	5,800(-35˚C)
MRV, cP	38,000(-40˚C)
HTHS Viscosity at 150˚C, cP	3.8

ZIC TOP FS FUEL SAVING 0W-20 / 0W-30

PAO-contained Fully Synthetic Engine Oil for The Next Generation

PAO FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Advanced fuel efficiency and oil durability
- Excellent wear protection for extended engine life
- Outstanding engine protection at high operating temperature
- Maximizing acceleration and performance in extreme driving conditions

DESCRIPTION

ZIC TOP FS is a PAO-contained fully synthetic motor oil formulated to provide outstanding engine protection and enhanced oil performance durability. In addition to Low SAPS* technology application, it has been developed to obtain the latest approvals from major automotive manufacturers in Europe and USA to guarantee excellent fuel savings for the latest modern passenger cars.

* Low SAPS: low level of Sulfated Ash, Phosphorus, Sulfur in the oil to protect emission reduction devices

SPECIFICATION

TOP FS 0W-20

- ACEA C6/C5 , API SP, ILSAC GF-6
- Approved by MB-Approval 229.71/72, STJLR 03-5006-16
- Meets or exceeds BMW LL-17 FE+ / LL-14 FE+, FORD WSS-M2C947-B1 / WSS-M2C962-A1, FIAT 9.55535-GSX, Chrysler MS-12145

TOP FS 0W-30

- ACEA C2, API SP, ILSAC GF-6
- Approved by MB-Approval 229.61/227.61
- Meets or exceeds BMW LL-12 FE, FORD WSS-M2C950-A

RECOMMENDATIONS

- Recommended for Gasoline / Diesel / LPG engines with DPF, CPF or SCR

TYPICAL PROPERTIES

SAE Grade	0W-20	0W-30
Density, g/cm^3	0.842	0.842
Kinematic Viscosity at 40˚C, cSt	63.0	63.5
Kinematic Viscosity at 100˚C, cSt	8.15	11.60
Viscosity Index	174	181
Total Base Number (TBN), mgKOH/g	8.1	7.9
Flash Point, °C	228	224
Pour Point, °C	-51	-48
CCS, cP	5,900(-35˚C)	5,800(-35˚C)
MRV, cP	13,000(-40˚C)	18,000(-40˚C)
HTHS Viscosity at 150˚C, cP	2.7	3.1

ZIC TOP LS LOW SAPS
0W-20 / 0W-30 / 5W-30

PAO-contained Fully Synthetic Engine Oil for The Next Generation

PAO FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Effectively prevents deposits and keeps engine parts clean
- Excellent anti-wear and anti-friction properties to prevent engine system trouble
- Advanced fuel efficiency and oil durability
- Compatible with all emission reduction system, DPF and SCR

DESCRIPTION

ZIC TOP LS is a PAO contained fully synthetic motor oil formulated to provide outstanding engine protection and enhanced oil performance durability. It guarantees excellent fuel efficiency and is recommended for the latest modern vehicles of Volkswagen approvals that require Low SAPS* technology.

* Low SAPS: low level of Sulfated Ash, Phosphorus, Sulfur in the oil to protect emission reduction devices

SPECIFICATION

TOP LS 0W-20	TOP LS 0W-30	TOP LS 5W-30
• ACEA C6/C5, API SP / ILSAC GF-6 • Approved by VW 508.00/509.00, Porsche C20 • Meets or exceeds Ford WSS-M2C956-A1	• ACEA C3 • Approved by VW 504.00/507.00, Porsche C20 • Meets or exceeds BMW LL-04	• ACEA C3 ; API SN • Approved by VW 504.00/507.00; MB-Approval 229.51; Porsche C20 • Meets or exceeds BMW LL-04

RECOMMENDATIONS

- Recommended for Gasoline, Diesel with DPF/CPF/SCR and LPG engines

TYPICAL PROPERTIES

SAE Grade	0W-20	0W-30	5W-30
Density, g/cm^3	0.842	0.841	0.851
Kinematic Viscosity at 40˚C, cSt	42.5	51.5	67.2
Kinematic Viscosity at 100˚C, cSt	8.10	9.48	11.56
Viscosity Index	167	170	167
Total Base Number (TBN), mgKOH/g	9.4	9.0	8.5
Flash Point, °C	222	234	234
Pour Point, °C	-48	-48	-42
CCS, cP	5,600(-35˚C)	5,500(-35˚C)	5,900(-30˚C)
MRV, cP	14,000(-40˚C)	15,000(-40˚C)	23,000(-35˚C)
HTHS Viscosity at 150˚C, cP	2.7	3.6	3.6

ZIC X9
5W-30 / 5W-40

Fully Synthetic Engine Oil of European Car Manufacturer's Specifications

FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Effectively prevents deposits and keeps engine parts clean
- Excellent anti-wear and anti-friction properties to prevent engine system trouble
- High oil film strength under extreme engine operation
- Maximizing engine acceleration and its overall performance

DESCRIPTION

ZIC X9 5W-40 is a fully synthetic motor oil formulated with VHVI Technology. It meets or exceeds the highest performance standards of European major car OEMs with outstanding engine protection under the most severe conditions.

SPECIFICATION

X9 5W-30

- ACEA A3/B4
- Approved by MB-Approval 229.5/229.3; VW 502.00/505.00
- Meets or exceeds BMW LL-01; RN 0700/0710

X9 5W-40

- ACEA A3/B4; API SP
- Approved by MB-Approval 229.5/229.3; VW 502.00/505.00; RN 0700/0710
- Meets or exceeds BMW LL-01; Porsche A40; PSA B781 2296

RECOMMENDATIONS

- Recommended for Gasoline, Diesel (without DPF/CPF/SCR) and LPG engines

TYPICAL PROPERTIES

SAE Grade	5W-30	5W-40
Density, g/cm^3	0.852	0.853
Kinematic Viscosity at 40˚C, cSt	71.3	84.4
Kinematic Viscosity at 100˚C, cSt	12.06	14.00
Viscosity Index	167	172
Total Base Number (TBN), mgKOH/g	12.2	10.6
Flash Point, °C	130	228
Pour Point, °C	-39	-39
CCS, cP	6,300(-30˚C)	5,900(-30˚C)
MRV, cP	27,000(-35˚C)	38,000(-35˚C)
HTHS Viscosity at 150˚C, cP	3.6	3.8

ZIC X9 FS FUEL SAVING 5W-30

Fully Synthetic Engine Oil of European Car Manufacturer's Specifications

FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Effectively prevents deposits and keeps engine parts clean
- Excellent anti-wear and anti-friction properties to prevent engine system trouble
- Advanced base oil and additive formulation technology to improve fuel efficiency
- Compatible with all emission reduction system, DPF and SCR

DESCRIPTION

ZIC X9 FS is a fully synthetic engine oil specifically engineered to meet the stringent requirements of European passenger cars equipped with gasoline direct injection, turbo charger, or diesel common rail direct injection with after treatment devices (DPF or SCR). ZIC X9 LS provides superior wear and sludge protection to keep your engine in optimum condition. In addition to Low SAPS* technology that global automakers demand in their latest modern automotives, ZIC X9 FS 5W-30 has ACEA C2 performance of low HTHS viscosity (2.9 cP < HTHS < 3.5 cP) to improve fuel efficiency.

* Low SAPS: low level of Sulfated Ash, Phosphorus, Sulfur in the oil to protect emission reduction devices

SPECIFICATION

X9 FS 5W-30

- API C2; ACEA A5/B5; API SN
- Approved by RN 0700

RECOMMENDATIONS

- Recommended for Gasoline, Diesel with DPF/CPF/SCR and LPG engines

TYPICAL PROPERTIES

SAE Grade	5W-30
Density, g/cm^3	0.849
Kinematic Viscosity at 40˚C, cSt	57.6
Kinematic Viscosity at 100˚C, cSt	10.15
Viscosity Index	165
Total Base Number (TBN), mgKOH/g	7.9
Flash Point, °C	228
Pour Point, °C	-39
CCS, cP	4,700(-30˚C)
MRV, cP	19,000(-35˚C)
HTHS Viscosity at 150˚C, cP	3.1

ZIC X9 LS LOW SAPS
0W-20 / 5W-30 / 5W-40

Fully Synthetic Engine Oil of European Car Manufacturer's Specifications

FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Effectively prevents deposits and keeps engine parts clean
- Excellent anti-wear and anti-friction properties to prevent engine system trouble
- Advanced additive technology to preserve engine power for fuel efficiency
- Compatible with all emission reduction system, DPF and SCR

DESCRIPTION

ZIC X9 LS is a fully synthetic engine oil specifically engineered to meet the stringent requirements of European passanger cars equipped with gasoline direct injection, turbo charger, or diesel common rail direct injection with after treatment device(DPF or SCR). ZIC X9 LS provides superior wear and sludge protection to keep your engine in optimum condition. ZIC X9 LS meets or exceeds Low SAPS* requirement that global automakers demand in their latest modern automotives.

* Low SAPS: low level of Sulfated Ash, Phosphorus, Sulfur in the oil to protect emission reduction devices

SPECIFICATION

X9 LS 0W-20	X9 LS 5W-30	X9 LS 5W-40
• ACEA C6/C5, API SP	• ACEA C3; API SN • Approved by MB-Approval 229.51/229.52; VW 505.00/505.01 • Meets or exceeds BMW LL-04	• ACEA C3, API SN • Approved by MB-Approval 229.51/229.31; VW 505.00/505.01 • Meets or exceeds BMW LL-04; Porsche A40

RECOMMENDATIONS

- Recommended for Gasoline, Diesel with DPF/CPF/SCR and LPG engines

TYPICAL PROPERTIES

SAE Grade	0W-20	5W-30	5W-40
Density, g/cm^3	0.844	0.852	0.851
Kinematic Viscosity at 40˚C, cSt	44.6	69.6	84.2
Kinematic Viscosity at 100˚C, cSt	8.42	12.07	14.00
Viscosity Index	168	172	172
Total Base Number (TBN), mgKOH/g	7.9	7.0	7.8
Flash Point, °C	228	228	232
Pour Point, °C	-42	-39	-39
CCS, cP	5,400(-35˚C)	5,800(-30˚C)	5,800(-30˚C)
MRV, cP	19,000(-40˚C)	23,000(-35˚C)	29,000(-35˚C)
HTHS Viscosity at 150˚C, cP	2.7	3.6	3.6

ZIC X9 HYBRID
0W-16 / 0W-20

Fully Synthetic Engine Oil for Hybrid Engines

FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Specifically developed for hybrid engines with UHVI base oil, YUBASE Plus
- Excellent fuel efficiency and emission reduction
- Outstanding hybrid engine protection

DESCRIPTION

ZIC X9 HYBRID is a hybrid-specific fully synthetic engine oil developed using Ultra-High Viscosity Index base oil, YUBASE Plus with consideration of hybrid engine characteristics. ZIC X9 HYBRID 0W-16 meets the latest API SP and ILSAC GF-6B performance, offering excellent fuel efficiency and emission reduction. ZIC X9 HYBRID 0W-20 is approved by GM dexos1® Gen3 providing not only improved fuel efficiency but also excellent engine protection.

SPECIFICATION

X9 HYBRID 0W-16	X9 HYBRID 0W-20
• API SP/ILSAC GF-6B	• API SP /ILSAC GF-6 • GM dexos ™1 Gen 3 (Refer to the product label for approval number)

RECOMMENDATIONS

- Hybrid passenger vehicles that can use SAE viscosity 0W-16 and 0W-20

TYPICAL PROPERTIES

SAE Grade	0W-16	0W-20
Density, g/cm^3	0.846	0.843
Kinematic Viscosity at 40˚C, cSt	37.1	45.7
Kinematic Viscosity at 100˚C, cSt	7.27	8.68
Viscosity Index	163	172
Total Base Number (TBN), mgKOH/g	8.4	7.3
Flash Point, °C	220	232
Pour Point, °C	-42	-45
CCS, cP	5,100(-35˚C)	5,700(-35˚C)
MRV, cP	16,000(-40˚C)	26,000(-40˚C)
HTHS Viscosity at 150˚C, cP	2.4	2.7

ZIC X7
5W-30 / 10W-30 / 10W-40

Fully Synthetic Engine Oil

FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Outstanding deposit and sludge control to maintain engine clean
- Excellent oxidation stability and low volatility to make oil drain interval longer
- Enhanced anti-wear performance to make sure of engine protection
- Preventing Low Speed Pre-Ignition (LSPI) phenomena in T-GDI engines

DESCRIPTION

ZIC X7 is a fully synthetic motor oil engineered to deliver outstanding engine protection with VHVI Technology. ZIC X7 helps extend engine life by protecting your engine from wear and keeping the engine clean. ZIC X7 provides excellent performance in both high and low temperatures. Its great friction control technology maximizes fuel efficiency in vehicles where SAE 5W-30 oils are recommended.

SPECIFICATION

X7 5W-30	X7 10W-30	X7 10W-40
• API SP; ILSAC GF-6	• API SP; ILSAC GF-6	• API SP

RECOMMENDATIONS

- Recommended for Gasoline and CNG/LPG engines

TYPICAL PROPERTIES

SAE Grade	5W-30	10W-30	10W-40
Density, g/cm^3	0.857	0.864	0.866
Kinematic Viscosity at 40˚C, cSt	65.4	66.0	100.1
Kinematic Viscosity at 100˚C, cSt	10.96	10.47	14.54
Viscosity Index	160	147	150
Total Base Number (TBN), mgKOH/g	7.4	7.8	7.3
Flash Point, °C	226	226	230
Pour Point, °C	-42	-42	-39
CCS, cP	5,600(-30˚C)	4,200 (-25˚C)	6,100(-25˚C)
MRV, cP	19,000(-35˚C)	12,000 (-30˚C)	14,000(-30˚C)
HTHS Viscosity at 150˚C, cP	3.3	3.5	4.1

ZIC X7 FE FUEL ECONOMY
0W-20 / 0W-30 / 5W-20

Fully Synthetic Engine Oil for Fuel Efficiency

FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Outstanding deposit and sludge control to maintain engine clean
- Excellent low temperature fluidity to start cold engine and improve fuel efficiency
- Enhanced anti-wear performance to make sure of engine protection
- Lower oil consumption preventing volatile component from evaporating

DESCRIPTION

ZIC X7 FE is a premium fully synthetic motor oil, engineered to maximize fuel savings. ZIC X7 FE's unique friction modifiers maximize your engine's performance for dynamic driving. ZIC X7 FE is a formulated with VHVI technology for lower oil consumption and improved oil performance durability. In addition, ZIC X7 FE 0W-20 is also applicable for hybrid vehicles.

SPECIFICATION

X7 FE 0W-20 / X7 FE 0W-30 / X7 FE 5W-20

- API SP; ILSAC GF-6

RECOMMENDATIONS

- Recommended for Gasoline and CNG/LPG engines with 0W-20/0W-30/5W-20 and Hybrid engine with 0W-20

TYPICAL PROPERTIES

SAE Grade	0W-20	0W-30	5W-20
Density, g/cm^3	0.846	0.843	0.861
Kinematic Viscosity at 40˚C, cSt	44.3	55.1	50.8
Kinematic Viscosity at 100˚C, cSt	8.43	10.29	8.53
Viscosity Index	170	178	145
Total Base Number (TBN), mgKOH/g	7.5	7.8	7.3
Flash Point, °C	228	228	224
Pour Point, °C	-45	-42	-42
CCS, cP	5,600(-35˚C)	5,700(-35˚C)	5,900(-30˚C)
MRV, cP	23,000(-40˚C)	30,000(-40˚C)	23,000(-35˚C)
HTHS Viscosity at 150˚C, cP	2.7	3.1	2.8

ZIC X7 LS LOW SAPS 5W-30 / 10W-40

Fully Synthetic Engine Oil

FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Outstanding deposit and sludge control to maintain engine clean
- Excellent oxidation stability and low volatility to make oil drain interval longer
- Enhanced low temperature fluidity and oil film strength at high temperature operation
- Compatible with all emission reduction system, DPF and SCR

DESCRIPTION

ZIC X7 LS is a fully synthetic motor oil engineered to deliver outstanding engine protection with VHVI Technology. It helps extend engine life by protecting your engine from wear and keeping the engine clean. ZIC X7 LS meets or exceeds Low SAPS* requirement cost effectively that global automakers demand in their modern automotives.

* Low SAPS: low level of Sulfated Ash, Phosphorus, Sulfur in the oil to protect emission reduction devices

SPECIFICATION

X7 LS 5W-30	X7 LS 10W-40
• ACEA C2/C3; API SP	• ACEA C3; API SN/CF
• Meets or exceeds MB 229.31	• Meets or exceeds MB-Approval 229.31; BMW LL-04; RN 0700

RECOMMENDATIONS

- Recommended for Gasoline, Diesel with DPF/CPF/SCR and LPG engines

TYPICAL PROPERTIES

SAE Grade	5W-30	10W-40
Density, g/cm^3	0.853	0.866
Kinematic Viscosity at 40˚C, cSt	72.2	100.1
Kinematic Viscosity at 100˚C, cSt	12.10	14.79
Viscosity Index	165	152
Total Base Number (TBN), mgKOH/g	7.8	7.7
Flash Point, °C	226	232
Pour Point, °C	-39	-36
CCS, cP	5,800(-30˚C)	6,300(-25˚C)
MRV, cP	24,000(-35˚C)	34,000(-30˚C)
HTHS Viscosity at 150˚C, cP	3.3	4.1

ZIC X7 HYBRID 0W-16 / 0W-20

Fully Synthetic Engine Oil for Hybrid Engines

FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Specifically developed for hybrid engines with VHVI base oil, YUBASE
- Excellent fuel efficiency and emission reduction
- Outstanding hybrid engine protection

DESCRIPTION

ZIC X7 HYBRID is a hybrid-specific fully synthetic engine oil developed using Very High Viscosity Index base oil YUBASE with consideration of hybrid engine characteristics. It helps improve fuel efficiency and reduce emission for hybrid vehicles.
ZIC X7 HYBRID 0W-16 is an ultra-low viscosity product with excellent fuel efficiency, while ZIC X7 HYBRID 0W-20 is a low viscosity product with outstanding engine protection.

SPECIFICATION

X7 HYBRID 0W-16	X7 HYBRID 0W-20
• API SP /ILSAC GF-6B	• API SP / ILSAC GF-6

RECOMMENDATIONS

- Hybrid passenger vehicles that can use SAE viscosity 0W-16 and 0W-20

TYPICAL PROPERTIES

SAE Grade	0W-16	0W-20
Density, g/cm^3	0.845	0.844
Kinematic Viscosity at 40˚C, cSt	37.5	45.5
Kinematic Viscosity at 100˚C, cSt	7.30	8.56
Viscosity Index	160	168
Total Base Number (TBN), mgKOH/g	8.3	7.2
Flash Point, °C	220	228
Pour Point, °C	-42	-42
CCS, cP	5,200(-35˚C)	6,000(-35˚C)
MRV, cP	17,000(-40˚C)	29,000(-40˚C)
HTHS Viscosity at 150˚C, cP	2.4	2.7

ZIC X7 DIESEL
5W-30 / 10W-30 / 10W-40

Fully Synthetic Engine Oil for Diesel Passenger Car

FULLY SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Outstanding deposit and sludge control to maintain engine clean
- Excellent oxidation stability and low volatility to make oil drain interval longer
- Enhanced anti-wear performance to make sure of engine protection
- Improved soot control to prevent wear or degraded performance of engine parts

DESCRIPTION

ZIC X7 Diesel is a fully synthetic engine oil engineered for modern, high performance passenger car diesel engines. It is especially formulated to apply modern common rail direct injection (CRDI) engines in utility vehicles (SUVs, pickup trucks, vans). It protects engines against wear in severe engine operation and keeps engines clean through excellent sludge and deposit control.

SPECIFICATION

X7 DIESEL 5W-30	X7 DIESEL 10W-30	X7 DIESEL 10W-40
• ACEA A3/B4 • Meet or Exceeds MB 229.3, VW 502.00/505.00, RN 0700/0710	• API CI-4/SL	• API CI-4/SL, ACEA E7 • Meets or Exceeds MB 228.3, MAN 3275-1, Volvo VDS-3, Renault RLD-2

RECOMMENDATIONS

- Recommended for light duty and passenger vehicle with diesel engines (without DPF/CPF/SCR): SUVs, pickup trucks, vans and other small diesel engines

TYPICAL PROPERTIES

SAE Grade	5W-30	10W-30	10W-40
Density, g/cm^3	0.854	0.868	0.868
Kinematic Viscosity at 40˚C, cSt	69.3	73.2	103.2
Kinematic Viscosity at 100˚C, cSt	11.78	10.91	14.92
Viscosity Index	167	137	150
Total Base Number (TBN), mgKOH/g	10.1	9.4	9.6
Flash Point, °C	226	228	226
Pour Point, °C	-39	-39	-39
CCS, cP	5,700(-30˚C)	6,100(-25˚C)	6,100(-25˚C)
MRV, cP	33,000(-35˚C)	18,000(-30˚C)	26,000(-30˚C)
HTHS Viscosity at 150˚C, cP	3.7	4.0	4.3

ZIC X5
5W-30 / 10W-30 / 15W-40 / 20W-50

High Performance Synthetic Engine Oil for a Balanced Value

SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Deposit and sludge control performance to maintain engine clean
- Oxidation stability and low volatility performance to make oil drain interval longer
- Anti-wear performance to make sure of engine protection
- Superior performance compared to mineral-based oil

DESCRIPTION

ZIC X5 is a synthetic motor oil formulated with VHVI Technology providing superior performance over motor oils formulated using mineral oil. ZIC X5 is designed to provide wear protection for longer engine life with outstanding deposit and sludge control.

SPECIFICATION

X5 5W-30 / X5 10W-30 / X5 15W-40 / X5 20W-50

- API SN Plus

RECOMMENDATIONS

- Recommended for Gasoline and CNG/LPG engines

TYPICAL PROPERTIES

SAE Grade	5W-30	10W-30	15W-40	20W-50
Density, g/cm^3	0.858	0.863	0.865	0.875
Kinematic Viscosity at 40˚C, cSt	65.9	66.5	102.5	168.8
Kinematic Viscosity at 100˚C, cSt	10.96	10.57	14.26	18.89
Viscosity Index	159	148	144	126
Total Base Number (TBN), mgKOH/g	7.4	7.4	7.4	7.1
Flash Point, °C	236	230	242	260
Pour Point, °C	-39	-42	-36	-33
CCS, cP	5,700(-30˚C)	4,200-25˚C)	4,900(-20˚C)	7,500-15˚C)
MRV, cP	22,000(-35˚C)	14,000(-30˚C)	12,000(-25˚C)	21,000-20˚C)
HTHS Viscosity at 150˚C, cP	3.4	3.2	3.9	-

ZIC X5 DIESEL
10W-30 / 10W-40 / 15W-40

High Performance Synthetic Engine Oil for Diesel Passenger Car

SEMI-SYNTHETIC | PCMO

GENERAL CHARACTERISTICS

- Deposit and sludge control performance to maintain engine clean
- Oxidation stability and low volatility performance to make oil drain interval longer
- Anti-wear performance to make sure of engine protection
- Soot control performance to prevent wear or degraded performance of engine parts

DESCRIPTION

ZIC X5 Diesel 10W-40 is a synthetic oil formulated with VHVI technology offering superior driving performance and engine protection for light duty diesel engines. ZIC X5 Diesel 10W-40 is especially designed for Pick-Up trucks, Vans, SUVs, MPVs and 4WD off-road vehicles. ZIC X5 Diesel 10W-40 delivers enhanced engine protection and improved soot prevention along with enhanced start-up performance.

SPECIFICATION

X5 DIESEL 10W-30 / X5 DIESEL 10W-40 / X5 DIESEL 15W-40

- API CH-4

RECOMMENDATIONS

- Recommended for light duty and passenger vehicle with diesel engines (without DPF/CPF/SCR): SUVs, pickup trucks, vans and other small diesel engines

TYPICAL PROPERTIES

SAE Grade	10W-30	10W-40	15W-40
Density, g/cm^3	0.867	0.867	0.868
Kinematic Viscosity at 40˚C, cSt	74.6	103.3	108.2
Kinematic Viscosity at 100˚C, cSt	11.10	14.80	14.99
Viscosity Index	139	150	144
Total Base Number (TBN), mgKOH/g	8.6	9.6	9.7
Flash Point, °C	228	230	230
Pour Point, °C	-39	-39	-36
CCS, cP	5,900(-25˚C)	6,300(-25˚C)	4,600(-20˚C)
MRV, cP	17,000(-30˚C)	26,000(-30˚C)	15,000(-25˚C)
HTHS Viscosity at 150˚C, cP	3.9	4.1	4.2

ZIC X3
15W-40 / 20W-50

High Quality Engine Oil

CLASSIC | PCMO

GENERAL CHARACTERISTICS

- Extends life of high mileage engines through wear and sludge protection
- Prevents engine leaks and high oil consumption
- Excellent balance between protection and performance

DESCRIPTION

ZIC X3 is a high viscosity premium motor oil with proven wear and sludge protection to extend engine life in high mileage vehicles. ZIC X3 works to reduce heat and stress on key engine components. ZIC X3 prevents engine leaks and reduces oil consumption.

SPECIFICATION

X3 15W-40 / X3 20W-50
• API SM

RECOMMENDATIONS

- Recommended for Gasoline and CNG/LPG engines

TYPICAL PROPERTIES

SAE Grade	15W-40	20W-50
Density, g/cm^3	0.870	0.877
Kinematic Viscosity at 40˚C, cSt	105.2	166.6
Kinematic Viscosity at 100˚C, cSt	14.10	19.00
Viscosity Index	136	129
Total Base Number (TBN), mgKOH/g	6.8	7.5
Flash Point, °C	232	258
Pour Point, °C	-36	-33
CCS, cP	5,500(-20˚C)	7,700(-15˚C)
MRV, cP	16,000(-25˚C)	20,000(-20˚C)

ZIC X3 DIESEL
10W-30 / 15W-40 / 20W-50

High Quality Engine Oil for Diesel Passenger Car

CLASSIC | PCMO

GENERAL CHARACTERISTICS

- Extends the life of high mileage engines against wear and high temperatures
- Great engine cleanliness though sludge and deposit control
- Excellent balance between protection and performance

DESCRIPTION

ZIC X3 Diesel is a premium motor oil with proven wear protection and sludge control to extend engine life in high mileage light duty diesel vehicles. ZIC X3 Diesel works to reduce heat and stress on key engine components.

SPECIFICATION

X3 DIESEL 10W-30 / X3 DIESEL 15W-40 / X3 DIESEL 20W-50

- API CF-4

RECOMMENDATIONS

- Recommended for light duty and passenger vehicle with diesel engines (without DPF/CPF/SCR): SUVs, pickup trucks, vans and other small diesel engines

TYPICAL PROPERTIES

SAE Grade	10W-30	15W-40	20W-50
Density, g/cm^3	0.866	0.863	0.875
Kinematic Viscosity at 40˚C, cSt	73.1	104.4	150.1
Kinematic Viscosity at 100˚C, cSt	10.85	14.62	17.87
Viscosity Index	137	145	131
Total Base Number (TBN), mgKOH/g	9.5	10.0	10.2
Flash Point, °C	236	252	252
Pour Point, °C	-39	-36	-33
CCS, cP	6,000(-25˚C)	4,500(-20˚C)	5,700(-15˚C)
MRV, cP	22,000(-30˚C)	15,000(-25˚C)	16,000(-20˚C)

ZIC ULTRA 5W-30

Fully Synthetic Heavy Duty Diesel Engine Oil for Longer Oil Drain Interval and Higher Fuel Efficiency

FULLY SYNTHETIC | HDDEO

GENERAL CHARACTERISTICS

- Outstanding engine protection against wear and corrosion
- Enhanced oxidation and thermal stability offering longer oil drain capability
- Excellent low volatility providing reduced oil consumption
- Lower temperature fluidity and higher efficiency of emission reduction devices contributing to fuel efficiency improvement

DESCRIPTION

ZIC ULTRA 5W-30 is a fully synthetic heavy duty diesel engine oil providing longer oil drain intervals and significantly increased outstanding fuel economy performance with better cold temperature fluidity during engine start-up to make the most of the newest Euro VI engine's capabilities.

SPECIFICATION

ULTRA 5W-30

- ACEA E8(E6)/E11(E9)/E4/E7; API CK-4; JASO DH-2/DH-1/DL-0
- Approved by DTFR 15C110(MB 228.51)/DTFR 15C120(MB 228.52)/DTFR 15C100(MB 228.31); MAN M3677/M3777/M3775; Scania LDF-4; Volvo VDS-4.5; Mack EOS-4.5; MTU Cat 3.1/2.1; Renault RLD-3; Caterpillar ECF-3, Cummins CES 20086; Detroit DFS 93K222; Deutz DQC IV-18 LA; DAF Extended Drain
- Meets or exceeds MAN M3477/M3271-1; Renault RLD-4; Cummins CES 20081; Detroit DFS 93K218

RECOMMENDATIONS

- Recommended for the latest heavy duty diesel engines of Euro VI, V standards equipped with DPF/CPF/SCR

TYPICAL PROPERTIES

SAE Grade	5W-30
Density, g/cm^3	0.855
Kinematic Viscosity at 40˚C, cSt	71.4
Kinematic Viscosity at 100˚C, cSt	11.94
Viscosity Index	165
Total Base Number (TBN), mgKOH/g	13.0
Flash Point, °C	232
Pour Point, °C	-42
CCS, cP	6,300(-30˚C)
MRV, cP	25,000(-35˚C)
HTHS Viscosity at 150˚C, cP	3.5

ZIC X9000 10W-40

Fully Synthetic Heavy Duty Diesel Engine Oil for Longer Oil Drain Interval

FULLY SYNTHETIC | HDDEO

GENERAL CHARACTERISTICS

- Outstanding oil film strength to reduce metal-on-metal contact preventing wear in engine parts
- Enhanced oxidation and thermal stability offering longer drain capability
- Excellent low volatility providing reduced oil consumption
- Upgraded protection of emission reduction devices contributing to fuel efficiency improvement

DESCRIPTION

ZIC X9000 10W-40 is a fully synthetic heavy duty diesel engine oil providing longer oil drain intervals and significantly increased level of engine protection for the heavy duty diesel engine vehicles equipped with emission reduction devices, DPF, SCR and etc. It reliably ensures highest performances even in the latest high-load diesel engines to make the most of the newest Euro VI engine's capabilities.

SPECIFICATION

X9000 10W-40

- ACEA E8(E6)/E11(E9)/E4/E7; API CK-4; JASO DH-2
- Approved by DTFR 15C110(MB 228.51)/DTFR 15C120(MB 228.52)/DTFR 15C100(MB 228.31); MAN M3775; Volvo VDS-4.5; Mack EOS-4.5; MTU Cat 3.1/2.1; Renault RLD-3; Caterpillar ECF-3; Cummins CES 20086; Detroit DFS 93K222; Deutz DQC IV-18 LA
- Meets or exceeds MAN M3477/M3271-1; Scania Low Ash; Renault RLD-4; Cummins CES 20081; DAF Extended Drain

RECOMMENDATIONS

- Recommended for the latest heavy duty diesel engines of Euro VI, V standards equipped with DPF/CPF/SCR

TYPICAL PROPERTIES

SAE Grade	10W-40
Density, g/cm^3	0.864
Kinematic Viscosity at 40˚C, cSt	93.7
Kinematic Viscosity at 100˚C, cSt	14.21
Viscosity Index	158
Total Base Number (TBN), mgKOH/g	12.0
Flash Point, °C	226
Pour Point, °C	-39
CCS, cP	6,300(-25˚C)
MRV, cP	20,000(-30˚C)
HTHS Viscosity at 150˚C, cP	4.0

ZIC X8000
10W-40 / 15W-40

Synthetic Heavy Duty Diesel Engine Oil of CK-4 and OEM Performances

SYNTHETIC | HDDEO

GENERAL CHARACTERISTICS

- Outstanding oil film strength to reduce metal-on-metal contact preventing wear in engine parts
- Enhanced detergent and dispersant additive system to inhibit deposit and sludge build up
- Excellent low volatility providing reduced oil consumption
- Protection of emission reduction devices contributing to fuel efficiency improvement

DESCRIPTION

ZIC X8000 is a synthetic heavy duty engine oil providing longer oil drain intervals and higher engine protection through VHVI (Very High Viscosity Index) Tech. It ensures oil performance durability, enabling high-load Euro VI and V diesel engines equipped with emission reduction devices, DPF, SCR and etc. to operate at full capabilities.

SPECIFICATION

X8000 10W-40 / X8000 15W-40

- API CK-4/CJ-4; ACEA E11(E9)/E7
- Approved by DTFR 15C100(MB 228.31); MAN M3775; Volvo VDS-4.5; Mack EOS-4.5; MTU Cat 2.1; Renault RLD-4; Caterpillar ECF-3; Cummins CES 20086; Detroit DFS 93K222; Deutz DQC III-18 LA
- Meets or exceeds JASO DH-2; Volvo VDS-4/3; Mack EO-O Premium plus/EO-N; Renault RLD-3; Cummins CES 20081; Detroit DFS 93K218; Ford WSS M2C171-F1

RECOMMENDATIONS

- Recommended for the latest heavy duty diesel engines of Euro VI, V standards equipped with DPF/CPF/SCR

TYPICAL PROPERTIES

SAE Grade	10W-40	15W-40
Density, g/cm^3	0.868	0.873
Kinematic Viscosity at 40˚C, cSt	98.4	110.1
Kinematic Viscosity at 100˚C, cSt	14.25	14.51
Viscosity Index	149	135
Total Base Number (TBN), mgKOH/g	9.9	10.0
Flash Point, °C	230	232
Pour Point, °C	-39	-39
CCS, cP	6,200(-25˚C)	6,000(-20˚C)
MRV, cP	22,000(-30˚C)	16,000(-25˚C)
HTHS Viscosity at 150˚C, cP	4.1	4.2

ZIC X7000

FE 10W-30 / 10W-40 / 15W-40

Synthetic Heavy Duty Diesel Engine Oil of CK-4 Performance

SYNTHETIC | HDDEO

GENERAL CHARACTERISTICS

- Robust oil film to reduce metal-on-metal contact preventing wear in engine parts
- Balanced detergent and dispersant additive system to inhibit deposit and sludge build up
- Lower volatility providing reduced oil consumption
- Reliable protection of emission reduction devices to maintain its performance

DESCRIPTION

ZIC X7000 is a synthetic heavy duty engine oil providing longer oil drain intervals and higher engine protection through VHVI (Very High Viscosity Index) Tech. It ensures oil performances that enable Euro V and VI diesel engines equipped with emission reduction devices, DPF, SCR and etc. to operate at good condition.

SPECIFICATION

X7000 FE 10W-30 / X7000 10W-40 / X7000 15W-40

- API CK-4; ACEA E11(E9)/E7
- Meets or exceeds DTFR 15C100(MB 228.31); MAN M3775; Volvo VDS-4; MTU Cat 2.1; Caterpillar ECF-3; Cummins CES 20081; Detroit DFS 93K218

RECOMMENDATIONS

- Recommended for the latest heavy duty diesel engines of Euro VI, V standards equipped with DPF/CPF/SCR

TYPICAL PROPERTIES

SAE Grade	FE 10W-30	10W-40	15W-40
Density, g/cm^3	0.861	0.869	0.871
Kinematic Viscosity at 40˚C, cSt	75.9	98.3	113.0
Kinematic Viscosity at 100˚C, cSt	11.67	14.21	14.88
Viscosity Index	135	148	146
Total Base Number (TBN), mgKOH/g	10.0	9.7	10.0
Flash Point, °C	232	228	234
Pour Point, °C	-36	-39	-36
CCS, cP	5,000(-25˚C)	6,300(-25˚C)	-
MRV, cP	15,000(-30˚C)	23,000(-30˚C)	18,000(-25˚C)
HTHS Viscosity at 150˚C, cP	3.6	4.0	4.1

ZIC X6000
10W-40 / 15W-40 / 20W-50

Synthetic Heavy Duty Diesel Engine Oil of CI-4 Performance

SYNTHETIC | HDDEO

GENERAL CHARACTERISTICS

- Outstanding wear protection and engine cleanliness
- Engine power improvement by viscosity control and additive system
- Protection against corrosion, deposits and soot
- Oxidation and thermal stability to promote extended engine life

DESCRIPTION

ZIC X6000 is a synthetic heavy duty diesel engine oil to provide outstanding engine protection for on and off-highway applications with enhanced power. It is formulated from VHVI technology to provide optimized engine performance in modern diesel engine as well as older engines.

SPECIFICATION

X6000 10W-40	X6000 15W-40	X6000 20W-50
• API CI-4, ACEA E7 • Meets or exceeds DTFR 15B110 (MB 228.3), MAN M3275-1, Volvo VDS-3, Mack EO-N, MTU Oil Cat. 2, Renault RLD-2, Cummins CES 20076/20077, Deutz DQC III-10	• API CI-4	• API CI-4 • Meets or exceeds DTFR 15B110(MB 228.3), MAN M3275-1, Volvo VDS-2, Mack EO-M Plus, MTU Oil Cat. 2, Cummins CES 20076, Deutz DQC-II-18

RECOMMENDATIONS

- Recommended for heavy duty diesel engines in commercial vehicles

TYPICAL PROPERTIES

SAE Grade	10W-40	15W-40	20W-50
Density, g/cm^3	0.868	0.864	0.877
Kinematic Viscosity at 40˚C, cSt	102.9	104.5	142.9
Kinematic Viscosity at 100˚C, cSt	14.83	14.73	17.22
Viscosity Index	149	146	132
Total Base Number (TBN), mgKOH/g	9.5	9.7	9.7
Flash Point, °C	232	258	260
Pour Point, °C	-39	-33	-33
CCS, cP	6,3000(-25˚C)	4,800(-20˚C)	5,800(-15˚C)
MRV, cP	28,000(-30˚C)	15,000(-25˚C)	17,000(-20˚C)

ZIC X5000
10W-30 / 15W-40 / 20W-50

Premium Heavy Duty Diesel Engine Oil of CH-4 Performance

SYNTHETIC | HDDEO

GENERAL CHARACTERISTICS

- Wear protection and cleaner engine
- Protection against corrosion, deposits and soot
- Oxidation and thermal stability to promote extended engine life

DESCRIPTION

ZIC 5000 is a premium heavy duty diesel engine oil that is engineered to provide outstanding engine protection for on and off-highway applications. ZIC X5000 is recommended for use in heavy-duty applications and operating environments found in trucking, construction and agricultural industries.

SPECIFICATION

X5000 10W-30 / X5000 15W-40 / X5000 20W-50

- API CH-4

RECOMMENDATIONS

- Recommended for heavy duty diesel engines in commercial vehicles

TYPICAL PROPERTIES

SAE Grade	10W-30	15W-40	20W-50
Density, g/cm^3	0.865	0.866	0.878
Kinematic Viscosity at 40˚C, cSt	74.2	106.2	173.7
Kinematic Viscosity at 100˚C, cSt	11.11	14.59	19.56
Viscosity Index	140	141	130
Total Base Number (TBN), mgKOH/g	9.0	8.9	9.0
Flash Point, °C	234	252	268
Pour Point, °C	-39	-33	-30
CCS, cP	5,900(-25˚C)	5,100(-20˚C)	6,900(-15˚C)
MRV, cP	18,000(-30˚C)	17,000(-25˚C)	24,000(-20˚C)

ZIC X3000
15W-40 / 20W-50 / SAE 40 / SAE 50

High Performance Heavy Duty Diesel Engine Oil for a Balanced Value

SYNTHETIC | HDDEO

GENERAL CHARACTERISTICS

- Wear protection and cleaner engine
- Protection against corrosion, deposits and soot

DESCRIPTION

ZIC X3000 is a high quality heavy duty diesel engine oil to provide outstanding engine protection for on and off-highway applications with enhanced power. It is formulated from to provide optimized engine performance and recommended for use in heavy duty operating environments found in trucking construction and agricultural industries. ZIC X3000 is designed to address the needs of older vehicles where good value for performance remains a key driver for end users.

SPECIFICATION

X3000 15W-40 / X3000 20W-50 / X3000 40 / X3000 50

- API CF-4

RECOMMENDATIONS

- Recommended for heavy duty diesel engines in commercial vehicles

TYPICAL PROPERTIES

SAE Grade	15W-40	20W-50	40	50
Density, g/cm^3	0.860	0.876	0.881	0.880
Kinematic Viscosity at 40˚C, cSt	103.8	153.0	125.9	200.2
Kinematic Viscosity at 100˚C, cSt	15.07	17.33	13.85	19.44
Viscosity Index	152	123	108	111
Total Base Number (TBN), mgKOH/g	9.3	9.6	10.5	8.0
Flash Point, °C	254	266	258	258
Pour Point, °C	-33	-30	-27	-30
CCS, cP	4,000(-20˚C)	6,800(-15˚C)	-	-
MRV, cP	13,000(-25˚C)	20,000(-20˚C)	-	-

ZIC M9 RE
Racing Edition 10W-50

Fully Synthetic Motorcycle Oil - Experiencing the Best Performance Ever

FULLY SYNTHETIC | MCO

GENERAL CHARACTERISTICS

- Maximized power acceleration and seamless shifting
- Ultimate wear protection to expand engine lifespan
- Excellent thermal/oxidation stability and sludge/deposit control preventing engine parts from malfunction
- Exceptional engine cleanliness to harness the full capacity of the engine
- Superior oil film strength to ensure consistent engine performance

DESCRIPTION

ZIC M9 Racing Edition is a fully synthetic motorcycle engine oil equipped with VHVI Technology to provide outstanding engine protection. It also ensures ultimate engine cleanliness even under the most severe riding condition by minimizing sludge and deposit effectively with dedicated additive technology. ZIC M9 Racing Edition performance complies with requirement of API SN and JASO MA2.

SPECIFICATION

M9 Racing Edition 10W-50

- API SN, JASO MA2

RECOMMENDATIONS

- Recommended for modern 4-stroke motorcycle engines; v-twin and big bore types

TYPICAL PROPERTIES

SAE Grade	10W-50
Density, g/cm^3	0.853
Kinematic Viscosity at 40˚C, cSt	115.2
Kinematic Viscosity at 100˚C, cSt	17.55
Viscosity Index	168
Total Base Number (TBN), mgKOH/g	8.0
Flash Point, °C	236
Pour Point, °C	-36
CCS, cP	6,000(-25˚C)
MRV, cP	23,000(-30˚C)
HTHS Viscosity at 150˚C, cP	4.8

ZIC M9 4T 10W-40

Fully Synthetic Motorcycle Oil - Ultimate Performance

FULLY SYNTHETIC | MCO

GENERAL CHARACTERISTICS

- Maximized power transfer and smooth shifting
- Ultimate wear protection of engine parts
- Excellent thermal/oxidation stability and sludge/deposit control to run smoothly
- Outstanding engine cleanliness for optimal engine operation
- Improved oil film strength for optimal engine performance

DESCRIPTION

ZIC M9 4T is a fully synthetic motorcycle oil equipped with VHVI Technology to provide ultimate protection of engine, wet clutch, and gearbox. It also ensures ultimate power performance and smooth shifting for high-end motorcycles by minimizing the formation of sludge and deposit inside the engine.

SPECIFICATION

M9 4T 10W-40
• API SN, JASO MA2

RECOMMENDATIONS

- Recommended for modern 4-stroke motorcycle engines

TYPICAL PROPERTIES

SAE Grade	10W-40
Density, g/cm^3	0.851
Kinematic Viscosity at 40˚C, cSt	89.6
Kinematic Viscosity at 100˚C, cSt	14.10
Viscosity Index	163
Total Base Number (TBN), mgKOH/g	8.2
Flash Point, °C	248
Pour Point, °C	-33
CCS, cP	3,900(-25˚C)
MRV, cP	18,000(-30˚C)
HTHS Viscosity at 150˚C, cP	3.9

ZIC M9 4AT 10W-40

Fully Synthetic Scooter Oil - Ultimate Performance

FULLY SYNTHETIC | MCO

GENERAL CHARACTERISTICS

- Seamless acceleration and shifting with diminished noise and vibration
- Ultimate wear protection of engine parts
- Excellent thermal/oxidation stability and sludge/deposit control to run smoothly
- Superior resistance to high temperature within the engine in severe operation in the city
- Improved oil film strength for optimal engine performance

DESCRIPTION

ZIC M9 4AT is a fully synthetic scooter oil equipped with VHVI Technology to provide ultimate protection of scooter engine that is operated in higher RPM and temperature than motorcycle engine. It also ensures ultimate power performance and smooth shifting for high-end scooters in city riding by minimizing the formation of sludge and deposit within the engine.

SPECIFICATION

M9 4AT 10W-40
• API SN, JASO MB

RECOMMENDATIONS

- Recommended for modern 4-stroke scooter engines

TYPICAL PROPERTIES

SAE Grade	10W-40
Density, g/cm^3	0.852
Kinematic Viscosity at 40˚C, cSt	91.28
Kinematic Viscosity at 100˚C, cSt	14.40
Viscosity Index	164
Total Base Number (TBN), mgKOH/g	8.9
Flash Point, °C	248
Pour Point, °C	-36
CCS, cP	3,900(-25˚C)
MRV, cP	19,000(-30˚C)
HTHS Viscosity at 150˚C, cP	3.9

ZIC M7 4T
10W-30 / 10W-40 / 20W-40

Synthetic Motorcycle Oil - Excellent Protection and Smooth Ride

SYNTHETIC | MCO

GENERAL CHARACTERISTICS

- Optimized power transfer and smooth shifting
- Enhanced wear protection of engine parts
- Excellent thermal/oxidation stability and sludge/deposit control
- Outstanding engine cleanliness
- Improved oil film strength by reducing oil evaporation

DESCRIPTION

ZIC M7 4T is a synthetic motorcycle oil equipped with VHVI Technology to provide excellent protection of engine, wet clutch, and gearbox. It also ensures optimized power performance and smooth shifting for modern motorcycles by controlling the formation of sludge and deposit inside the engine.

SPECIFICATION

M7 4T 10W-30 / M7 4T 10W-40 / M7 4T 20W-40

- API SM, JASO MA2

RECOMMENDATIONS

- Recommended for modern 4-stroke motorcycle engines

TYPICAL PROPERTIES_

SAE Grade	10W-30	10W-40	20W-40
Density, g/cm^3	0.854	0.851	0.877
Kinematic Viscosity at 40˚C, cSt	67.2	89.1	123.8
Kinematic Viscosity at 100˚C, cSt	10.94	14.05	14.49
Viscosity Index	152	162	118
Total Base Number (TBN), mgKOH/g	7.1	7.3	7.5
Flash Point, °C	246	246	254
Pour Point, °C	-33	-33	-30
CCS, cP	3,900(-25˚C)	3,900(-25˚C)	6,200(-15˚C)
MRV, cP	19,000(-30˚C)	19,000(-30˚C)	15,000(-20˚C)

ZIC M7 4AT 10W-40

Synthetic Scooter Oil - Excellent Protection and Smooth Ride

SYNTHETIC | MCO

GENERAL CHARACTERISTICS

- Smooth acceleration and shifting
- Optimized wear protection of engine parts
- Enhanced thermal/oxidation stability and sludge/deposit control
- Boosted resistance to high temperature within the engine in severe operation in the city
- Improved oil film strength by reducing oil evaporation

DESCRIPTION

ZIC M7 4AT is a synthetic scooter oil equipped with VHVI Technology to provide excellent protection of scooter engine that is operated in higher RPM and temperature than motorcycle engine. It also ensures optimized power performance and smooth shifting for modern scooters in city riding by controlling the formation of sludge and deposit within the engine.

SPECIFICATION

M7 4AT 10W-40
• API SM, JASO MB

RECOMMENDATIONS

- Recommended for modern 4-stroke scooter engines

TYPICAL PROPERTIES

SAE Grade	10W-40
Density, g/cm^3	0.855
Kinematic Viscosity at 40˚C, cSt	98.8
Kinematic Viscosity at 100˚C, cSt	14.07
Viscosity Index	154
Total Base Number (TBN), mgKOH/g	7.3
Flash Point, °C	254
Pour Point, °C	-33
CCS, cP	5,800(-25˚C)
MRV, cP	20,000(-30˚C)

ZIC M5 4T
10W-40 / 10W-50 / 20W-40 / 20W-50

Semi-Synthetic Motorcycle Oil - Prolong Engine Life

SEMI-SYNTHETIC | MCO

GENERAL CHARACTERISTICS

- Power transfer and smooth shifting
- Wear protection of engine parts
- Thermal/oxidation stability and sludge/deposit control
- Engine cleanliness

DESCRIPTION

ZIC M5 4T is a semi-synthetic motorcycle oil, designed to provide excellent protection of engine, wet clutch, and gearbox. It also ensures power performance and smooth shifting for motorcycles by controlling sludge and deposit inside the engine.

SPECIFICATION

M5 4T 10W-40 / M5 4T 10W-50 / M5 4T 20W-40 / M5 4T 20W-50

- API SL, JASO MA2

RECOMMENDATIONS

- Recommended for 4-stroke motorcycle engines

TYPICAL PROPERTIES

SAE Grade	10W-40	10W-50	20W-40	20W-50
Density, g/cm^3	0.852	0.871	0.871	0.871
Kinematic Viscosity at 40˚C, cSt	101.1	134.6	117.8	168.0
Kinematic Viscosity at 100˚C, cSt	14.84	19.23	14.03	19.43
Viscosity Index	151	163	118	132
Total Base Number (TBN), mgKOH/g	5.8	6.1	5.8	6.1
Flash Point, °C	240	250	240	240
Pour Point, °C	-33	-33	-30	-30
CCS, cP	5,000(-25˚C)	5,800(-25˚C)	5,900(-15˚C)	6,300-15˚C)
MRV, cP	18,000(-30˚C)	25,000(-30˚C)	16,000(-20˚C)	21,000(-20˚C)

ZIC M5 4AT
10W-40 / 20W-40

Semi-Synthetic Scooter Oil - Prolong Engine Life

SEMI-SYNTHETIC | MCO

GENERAL CHARACTERISTICS

- Smooth acceleration and shifting
- Wear protection of engine parts
- Thermal/oxidation stability and sludge/deposit control
- Resistance to high temperature within the engine in severe operation in the city

DESCRIPTION

ZIC M5 4AT is a semi-synthetic scooter oil, designed to provide excellent protection of scooter engine that is operated in higher RPM and temperature than motorcycle engine. It also ensures power performance and smooth shifting for scooters in city riding.

SPECIFICATION

M5 4AT 10W-40 / M5 4AT 20W-40

- API SL, JASO MB

RECOMMENDATIONS

- Recommended for 4-stroke scooter engines

TYPICAL PROPERTIES

SAE Grade	10W-40	20W-40
Density, g/cm^3	0.857	0.871
Kinematic Viscosity at 40˚C, cSt	95.2	117.7
Kinematic Viscosity at 100˚C, cSt	14.07	14.22
Viscosity Index	151	121
Total Base Number (TBN), mgKOH/g	5.7	6.0
Flash Point, °C	250	250
Pour Point, °C	-33	-30
CCS, cP	6,200(-25˚C)	6,000(-15˚C)
MRV, cP	19,000(-30˚C)	18,000(-20˚C)

ZIC M5 2T

Semi-Synthetic Motorcycle Oil - Prolong Engine Life

SEMI-SYNTHETIC | MCO

GENERAL CHARACTERISTICS

- Low ash formulation preventing problems in ring, piston and plug
- Excellent lubricity to protect engine
- Reducing engine deposits and exhaust emission (smoke)

DESCRIPTION

ZIC M5 2T is a semi-synthetic 2-stroke motorcycle engine oil, designed to work for excellent lubricity and engine protection. It can be used in all types of 2-stroke motorcycle engines. Oil to fuel ratio needs to be confirmed with OEM's guidance.

SPECIFICATION

M5 2T
• API TC; JASO FC; ISO-L-EGC

RECOMMENDATIONS

- Recommended for modern 2-stroke engines

TYPICAL PROPERTIES

Product Name	M5 2T
Density, g/cm^3	0.866
Kinematic Viscosity at 40˚C, cSt	46.5
Kinematic Viscosity at 100˚C, cSt	7.84
Viscosity Index	138
Total Base Number (TBN), mgKOH/g	1.3
Flash Point, °C	100
Pour Point, °C	-30

ZIC ATF 3

Fully Synthetic Transmission Fluid for Automotive Transmission

FULLY SYNTHETIC | DRIVELINE FLUIDS

GENERAL CHARACTERISTICS

- Excellent friction property ensuring smooth shifting
- Applying high-quality base oil YUBASE and dedicated additive components
- Suitable to use in power steering and hydraulic device in addition to automatic transmission

DESCRIPTION

ZIC ATF 3 meets the automatic transmission fluid specifications required by GM and Ford. It applies VHVI base oil YUBASE and carefully selected viscosity index improver, providing excellent fluidity at low temperatures and maintaining high viscosity at high temperatures. This ensures a good oil film strength, offering outstanding anti-wear and friction properties, contributing smooth shifting characteristics. Additionally, it can be used in various automotive power steering systems and hydraulic devices that allow transmission fluid application.

SPECIFICATION

ATF 3

- GM/Ford automatic transmission fluid - GM ATF III H, Ford Mercon
- Allison C-4

RECOMMENDATIONS

- Recommended for automatic transmissions

TYPICAL PROPERTIES

SAE Grade	ATF 3
Density, g/cm3	0.850
Kinematic Viscosity at 40˚C, cSt	36.5
Kinematic, Viscosity at 100°C, cSt	7.00
Viscosity Index	156
TAN, mgKOH/g	0.93
Flash Point, °C	220
Pour Point, °C	-48
Brookfield Viscosity, cP, -40˚C	18,500

ZIC ATF D 6

Fully Synthetic Automatic Transmission Fluid with GM ATF VI

FULLY SYNTHETIC | DRIVELINE FLUIDS

GENERAL CHARACTERISTICS

- Exceeds the requirements of General Motor's GM ATF VI specification
- Provides consistent shift performance for new and old GM transmissions
- Provides excellent oxidative stability under severe driving conditions

DESCRIPTION

ZIC ATF D 6 exceeds the requirement of GM ATF 6 specification. It is engineered for longer drain intervals and consistent shift performance. ZIC ATF D 6 prevents fluid breakdown at higher operating temperature and provides excellent oxidative stability under severe driving conditions.

SPECIFICATION

ATF D 6
• GM ATF VI
• Exceeds the requirement of GM ATF III, GM ATF II

RECOMMENDATIONS

- Recommended for GM 3~6 speed AT

TYPICAL PROPERTIES

Product Name	ATF D 6
Color	RED
Density, g/cm3	0.847
Kinematic Viscosity at 40˚C, cSt	30.3
Kinematic, Viscosity at 100°C, cSt	6.13
Viscosity Index	155.0
Flash Point, °C	208
Water, vol %	0.01
Brookfield Viscosity, cP, -20˚C	1,000
Brookfield Viscosity, cP, -30˚C	3,000
Brookfield Viscosity, cP, -40˚C	12,000
Pour Point, °C	-36

ZIC ATF XP 3 / SP 4

Fully Synthetic Automatic Transmission Fluid with HYUNDAI/KIA

FULLY SYNTHETIC | DRIVELINE FLUIDS

GENERAL CHARACTERISTICS

- Excellent lubrication for quiet operation and smooth shifting
- Provides improved anti-wear protection and consistent shift performance
- Supports flawless upshifting and downshifting
- Extends transmission fluids life and provides excellent fuel economy features

DESCRIPTION

ZIC ATF XP 3 is a high-performance which exceeds the original equipment manufacturer's specifications for HYUNDAI/KIA SP III. It is engineered to be used in slip-controlled lock-up automatic transmissions.
ZIC ATF SP 4 is the only genuine factory-fill or service-fill ATF that meets the requirements for HYUNDAI/KIA vehicles 6-speed automatic transmission. It is specially engineered for consistent shift performance and flawless upshifting and downshifting.

SPECIFICATION

ATF XP 3	ATF SP 4
• 4 speed automatic transmissions of all HYUNDAI/KIA vehicles • Automatic transmissions and CVTs for Mitsubishi vehicles where SP 3 is required	• For all HYUNDAI/KIA vehicles that require the SP 4 specification

RECOMMENDATIONS

- Recommended for automatic transmissions according to specification above

TYPICAL PROPERTIES

Product Name	ATF XP 3	ATF SP 4
Color	RED	RED
Density, g/cm^3	0.847	0.849
Kinematic Viscosity at 40˚C, cSt	34.5	25.6
Kinematic, Viscosity at 100°C, cSt	7.30	5.41
Viscosity Index	183	153
TAN, mgKOH/g	1.5	2.1
TBN, mgKOH/g	3.1	5.2
Flash Point, °C	206	214
Pour Point, °C	-51	-51
Brookfield Viscosity, cP, -40˚C	10,000	8,900

ZIC ATF MULTI

Fully Synthetic Automatic Transmission Fluid - ATF for Multi Vehicle (Multi-Purpose)

SYNTHETIC | DRIVELINE FLUIDS

GENERAL CHARACTERISTICS

- Effective wear protection and improved oxidation and corrosion resistance to protect transmission components
- Compatible with a wide range of automatic transmission from multiple manufacturers
- Exceptional friction control peformance providing smooth gear changes

DESCRIPTION

ZIC ATF Multi is a fully synthetic automatic transmission fluid for a wide range of passenger cars equipped with 4~8 speed automatic transmissions, offering excellent friction characteristics and superior performance in smooth shifting and noise reduction through thick film retention in high temperature.

SPECIFICATION

ATF MULTI

- AISIN WARNER JWS 3309(T-IV), ALLISON C-3/C-4, TES 389, 468; ATF RED-1, RED 1K: JASO 1-A;
  BMW 7045E(3 Series), 5 Series, LA 2634, LT 71141, ETL 80728, ATF 6; FORD MERCON, FNR5, WSS M2C, XT-2, XL-12;
  GM ATF IID, IIIG, IIIIH; HONDA/ACURA ATF-Z1; HYUNDAI/KIA SP-II, SP-III, JWS 3314, JWS 3317;
  MERCEDES BENZ MB 3/4/5 speed MITSUBISHI SP-II, SP-III, J2, AW; NISSAN/INFINITY MATIC-C, D, J, K, P;
  PORSCHE ZF 5HP, LT71141 ATF 3043-M115, T-IVUJWS 3309; PSA 371 2340;
  RENAULT DPO/AL-4, Matic D2, SATF-D TOYOTA/LEXUS ATF D-II, D-III, T-III, T-IV;
  VW/AUDI G 052 162, G 052 990 G 055 025; ZF TE-ML OSL, 09, 11A, 118, 21L

RECOMMENDATIONS

- Recommended for 3~5 speed automatic transmission

TYPICAL PROPERTIES

Product Name	ATF MULTI
Color	RED
Density, g/cm^3	0.847
Kinematic Viscosity at 40˚C, cSt	34.0
Kinematic, Viscosity at 100°C, cSt	6.71
Viscosity Index	159
TAN, mgKOH/g	1.7
Flash Point, °C	210
Pour Point, °C	-48
Brookfield Viscosity, cP, -40˚C	15,000

ZIC ATF MULTI LF
LOW FRICTION

Fully Synthetic Automatic Transmission Fluid - ATF for Multi Vehicle (6-Speed and above)

FULLY SYNTHETIC | DRIVELINE FLUIDS

GENERAL CHARACTERISTICS

- Excellent fuel efficiency by minimizing friction through low viscosity
- Superior friction properties for smooth gear shifting and efficient power transfer while maintaining anti-shudder protection
- Effective wear protection, improved oxidation and corrosion resistance to extend transmission life

DESCRIPTION

ZIC ATF Multi LF is a fully synthetic low-viscosity automatic transmission fluid for a wide range of passenger cars equipped with 6-speed and above automatic transmissions, providing excellent fuel efficiency and shifting performance with outstanding low-viscosity friction characteristics.

SPECIFICATION

ATF MULTI LF
• AISIN WARNER AW-1, JWS 3324(WS), AW-2; JASO 1-A-LV; BENTELY PY112995PA; FORD MERCON LV, ESCAPE Hybrid eCVT; GM ATF VI (6-speed); HONDA/ACURA DW-1, Type 3 & 3.1; HYUNDAI/KIA SP-IV, SP-IV, SPIV-M1, SP-IV-RR; JAGUAR Fluid 8432, 02JDE26444; LAND ROVER TYK500050, LR002460; MERCEDES BENZ MB 7/9-speed; MITSUBISHI SP-IV, J3, ATF-MA1, ATF PA; NISSAN/INFINITY MATIC-S/-W, ALTIMA Hybrid; PSA 16 350 560 80; SHELL M-1375.4; SUZUKI ATF AW-1; TESLA Model S, 3, X; TOYOTA/LEXUS ATF WS (JWS 3324), THSII, PIRIUS, THS 5th Gen., Noah; VOLVO PN 31256774, 31256675; ; ZF 6/8/9-speed; VW/AUDI G 053 001, G 055 540 A2, G 055 005, G 055 162, G 060 162

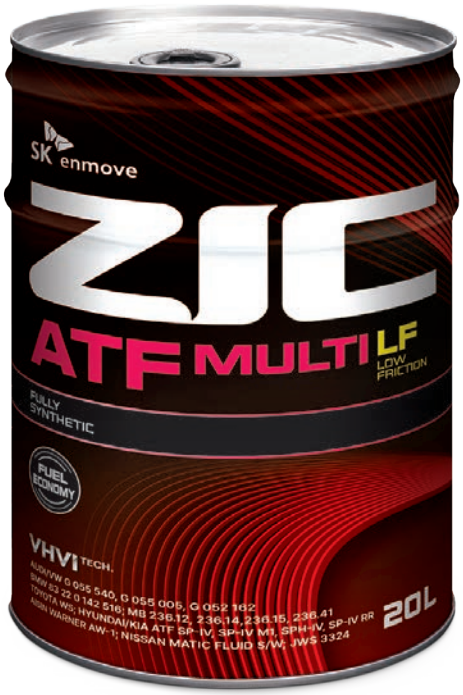
* It's required to check ATF spec in the car manual is included in the spec list.
* Use ATF MULTI in case of 5-speed and below

RECOMMENDATIONS

- Recommended for 6-speed and above automatic transmissions (Not for 3~5 speed)

TYPICAL PROPERTIES

Product Name	ATF MULTI LF
Color	RED
Density, g/cm^3	0.843
Kinematic Viscosity at 40˚C, cSt	27.3
Kinematic, Viscosity at 100°C, cSt	5.65
Viscosity Index	153
TAN, mgKOH/g	1.6
Flash Point, °C	214
Pour Point, °C	-51
Brookfield Viscosity, cP, -40˚C	9,300



ZIC CVTF MULTI

Fully Synthetic CVT Fluid - CVTF for Multi Vehicle

FULLY SYNTHETIC | DRIVELINE FLUIDS

GENERAL CHARACTERISTICS

- Effective wear protection and improved oxidation and corrosion resistance to protect transmission components
- Compatible with a wide range of automatic transmission from multiple manufacturers
- Exceptional friction control performance providing smooth gear changes

DESCRIPTION

ZIC CVTF MULTI is a transmission fluid designed for use in chain and belt driven continuously variable transmission systems in a wide range of vehicles. It provides optimal friction performance that improves fuel economy. It allows smooth transmission shifts, providing comfortable drive, and protects transmission from wear, rust and corrosion to preserve its service life.

SPECIFICATION

CVTF MULTI

- Meets or exceeds Audi Multitronic; BMW/Mini EZL 799A/83 22 0 136 376/83 22 0 429 154; Daihatsu AMMiX CVTF DFE/DC/DFC/TC; Dodge/Jeep/Chrysler NS-2/CVT+4; Fiat Tutela CVT N.G; GM/Saturn DEX-CVT/GM 1940713/714, CVTF I-Green2, GM VT4O/HP CVT; HONDA HMMF, CVT, Z-1(without starting clutch)/HCF2; HYUNDAI/KIA CVT-1; MAZDA JWS 3320; MITSUBISHI CVTF-J1, J4, J4+, ECO J4; NISSAN NS-1, 2, 2V, 3/N-CVT; Opel/Vauxhall 7-speed CVT/95529854; RENAULT CVT CK, SK, FK; SUBARU iCVT, iCVT FG, ECVT, Punch CVTF-EX1; SUBARU Lineartronic Chain CVT, CVT I, CVT 3 Fluid/K0425Y0710 & YO: 1, High Torque CVT Fluid/CV-30/K0421Y0700, CVTF-LV; Fujijyuuko i-CVTF FG; Suzuki CVTF TC, 3320, 4401/NS-2/CVT Green 1, 2, 1V; TOYOTA CVTF TC/CVTF FE; VOLVO CVT 4959; Zyote CVTs; VW/AUDI TL 52116(G052516), TL 52180(G052180); Chery CVT

RECOMMENDATIONS

- Recommended for continuously variable transmission

TYPICAL PROPERTIES

Product Name	CVTF MULTI
Density, g/cm^3	0.847
Kinematic Viscosity at 40˚C, cSt	21.7
Kinematic, Viscosity at 100°C, cSt	6.99
Viscosity Index	182
TAN, mgKOH/g	2.6
TBN, mgKOH/g	5.75
Flash Point, °C	206
Pour Point, °C	-48
Brookfield Viscosity, cP, -40˚C	9,400

ZIC DCTF MULTI

Fully Synthetic DCT Fluid - DCTF for Multi Vehicle

FULLY SYNTHETIC | DRIVELINE FLUIDS

GENERAL CHARACTERISTICS

- Excellent clutch friction durability, providing smooth shifts without noise and vibration
- Superior anti-wear, rust and corrosion performances to protect transmission and preserve its lifespan

Compatible with a wide range of DCTs from multiple manufacturers

DESCRIPTION

ZIC DCTF MULTI is a fully synthetic transmission fluid designed for use in a wide range of wet dual clutch transmissions in vehicles from Europe, US and Asian car manufacturers. It allows smooth transmission shifts, providing comfortable drive, and protects transmission from wear, rust and corrosion to preserve its service life.

SPECIFICATION

DCTF MULTI

- Meets or exceeds BMW Drivelogic 7-speed (Getrag)/DCTF-1, 6-speed DCT, MTF LT-5; Borg Warner; Bugatti Veyron; Chrysler 68044345 EA & GA, Powershift 6-speed (Getrag); Ferrari 7-speed (Getrag)/TE DCT-3; FORD/NISSAN Powershift 6-speed (GFT) / Ford WSS-M2C936A, part # 1490763/1490761; MITSUBISHI TC-SST 6-speed (GFT) / MZ320065 DiaQueen SSTF-1; PDK transmissieolie voor ZF (DCT Transmission Oil for ZF); PEUGEOT/CITROEN DCS 6-speed (GFT)/9734.S2 RENAULT EDC 6-speed (Getrag)/ EDC-7; VOLVO Powershift 6-speed (GFT)/1161838/1161839; VW (AUDI, SEAT, SKODA) 6-speed; VW/AUDI TL 52529 (spec) / G 052 529 A2 or A6 (fluid)/ DSG7 = S-Tronic 7/ 7 speed VW (AUDI, SEAT, SKODA); VW/AUDI TL521 82 (spec) / G 052 182 A2 or A6 (fluid); ZF/PORSCHE Oil #999.917.080.00

RECOMMENDATIONS

- Recommended for continuously variable transmission

TYPICAL PROPERTIES

Product Name	DCTF MULTI
Density, g/cm^3	0.852
Kinematic Viscosity at 40˚C, cSt	32.1
Kinematic, Viscosity at 100°C, cSt	7.02
Viscosity Index	188
TAN, mgKOH/g	1.6
TBN, mgKOH/g	5.75
Flash Point, °C	200
Pour Point, °C	-48
Brookfield Viscosity, cP, -40˚C	11,000

ZIC G-5
80W-90 / 85W-140

Premium Automotive Gear Oil - Multipurpose GL-5 Performance

SYNTHETIC | AUTOMOTIVE GEAR OIL

GENERAL CHARACTERISTICS

- Excellent thermal and oxidative stability preventing high temperature oil degradation of forming sludge and varnish
- Superior EP performance to protect final drive components from wear and pitting fatigue
- Outstanding power density by oil film strength enduring severe operation condition: high torque and heavy loading

DESCRIPTION

ZIC G-5 is a premium automotive gear oil designed to provide excellent thermal and oxidative stability, improved wear and corrosion protection with extreme pressure (EP) performance. It ensures long service life of differentials, rear axle and other final drives fitted in car, truck and tractors and etc.

SPECIFICATION

G-5 80W-90 / G-5 85W-140

- Meets or exceeds API GL-5; MIL-L-2105D

RECOMMENDATIONS

- Recommended for drive axle, reduction gears, differentials (including hypoid gear), other final drives, etc.

TYPICAL PROPERTIES

SAE Grade	80W-90	85W-140
Density, g/cm^3	0.879	0.884
Kinematic Viscosity at 40°C, cSt	144.9	315.1
Kinematic Viscosity at 100°C, cSt	14.98	25.20
Viscosity Index	104	103
TAN, mgKOH/g	1.0	1.0
Flash Point, °C	228	232
Pour Point, °C	-30	-24
Brookfield Viscosity, cP, -12°C	-	32,000
Brookfield Viscosity, cP, -26°C	92,000	-

ZIC G-EP
80W-90 / 90 / 85W-140

Premium Automotive Gear Oil - Multipurpose GL-4 Performance

SYNTHETIC | AUTOMOTIVE GEAR OIL

GENERAL CHARACTERISTICS

- Excellent thermal and oxidative stability to minimize sludge and varnish formation
- Superior EP performance to protect gears from wear and scuffing to ensure long gear lifespan
- Outstanding friction property for manual transmission providing proper gear shifts

DESCRIPTION

ZIC G-EP is a premium automotive gear oil designed to provide excellent thermal and oxidation stability, improved wear and corrosion protection with extreme pressure (EP) performance. It ensures long service life of differentials, rear axle and other final drives fitted in car, truck and tractors and etc.

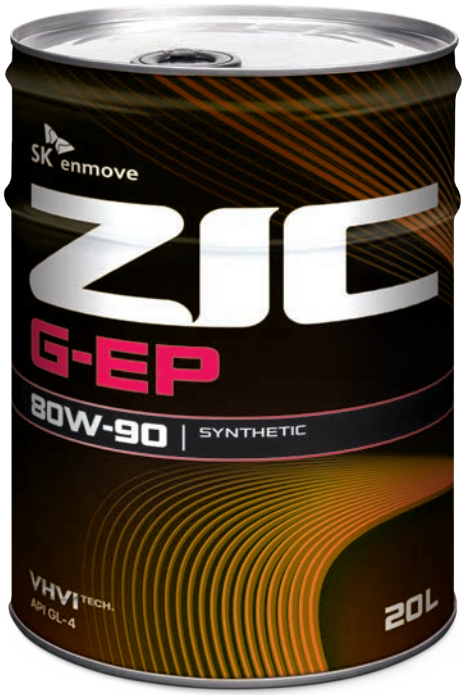
SPECIFICATION

G-EP 80W-90 / G-EP 90 / G-EP 85W-140

- Meets API GL-4, MIL-L-2105D

RECOMMENDATIONS

- Recommended for selected manual transmissions, transaxle and drive axle operating under moderate speeds and loads where GL-5 gear oils are not required



TYPICAL PROPERTIES

SAE Grade	80W-90	90	85W-140
Density, g/cm^3	0.882	0.881	0.892
Kinematic Viscosity at 40˚C, cSt	138.5	132.3	347.6
Kinematic Viscosity at 100˚C, cSt	14.47	14.31	26.78
Viscosity Index	104	107	102
TAN, mgKOH/g	0.5	0.5	0.4
Flash Point, °C	240	238	248
Pour Point, °C	-30	-30	-18
Brookfield Viscosity, cP, -12˚C	-	-	4,100(-12˚C)
Brookfield Viscosity, cP, -26˚C	110,000(-26˚C)	101,000(-26˚C)	-

ZIC G-FF 75W-85

Premium Manual Transmission Oil for FF (Front-engine, Front-wheel drive) vehicles

SYNTHETIC | AUTOMOTIVE GEAR OIL

GENERAL CHARACTERISTICS

- Excellent thermal and oxidative stability to minimize sludge and varnish formation
- Superior low temperature property to reduce gearshift resistance in cold temperature
- Outstanding wear reduction and good friction property for manual transmission providing proper gear shifts

DESCRIPTION

ZIC G-FF is a premium manual transmission fluid specifically designed for Front-engine Front-wheel drive vehicles.
It ensures excellent high temperature stability and enhanced wear and corrosion protection with improved low temperature characteristics.

SPECIFICATION

G-FF 75W-85
• Meets API GL-4; MIL-L-2105A

RECOMMENDATIONS

- Recommended for manual transmission and manual gearbox & trans axle

TYPICAL PROPERTIES

SAE Grade	75W-85
Density, g/cm^3	0.871
Kinematic Viscosity at 40˚C, cSt	70.2
Kinematic, Viscosity at 100°C, cSt	12.32
Viscosity Index	174
TAN, mgKOH/g	0.9
Flash Point, °C	220
Pour Point, °C	-48
Brookfield Viscosity, cP, -40˚C	58,000

ZIC SUPERVIS
AW 32 / AW 46 / AW 68 / AW 100

Hydraulic Oil with Outstanding Anti-Wear Performance

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Outstanding anti-wear property by forming protective film on metal surface to extend the lifespan of hydraulic components
- Excellent oxidation and thermal stability preventing the formation of sludge, varnish and deposits to reduce maintenance repairs
- Enhanced demulsibility from water preventing corrosion and wear and anti-foaming property to ensure efficient hydraulic system

DESCRIPTION

ZIC SUPERVIS AW is a synthetic hydraulic oil products made of carefully selected high quality base oil including Group III base oil, YUBASE, and advanced additives to provide outstanding anti-wear properties, rust protection, low deposit formation, and good demulsibility as well as oxidation resistance.

SPECIFICATION

SUPERVIS AW 32 / SUPERVIS AW 46 / SUPERVIS AW 68 / SUPERVIS AW 100

- Exceeds the requirements of Denison HF-0, HF-2 and DIN 51524 part 2, MIL-L-17672D, US Steel 126
- Cincinnati Machine P-68 (ISO 32), P-70 (ISO 46), P-69 (ISO 68)
- Eaton (Vickers) M2950-S (35VQ25) and I-286-S (V-104C)

RECOMMENDATIONS

- Recommended for stationary hydraulic system (industrial machinery)

TYPICAL PROPERTIES

ISO VG	32	46	68	100
ASTM Color	L0.5	L0.5	0.5	1.0
Density, g/cm^3	0.842	0.850	0.861	0.884
Kinematic, Viscosity at 40°C, cSt	32.0	46.0	67.3	96.6
Kinematic, Viscosity at 100°C, cSt	5.94	7.55	9.19	11.08
Viscosity Index	132	130	113	100
TAN, mgKOH/g	0.25	0.26	0.27	0.20
Flash Point, °C	242	254	258	262
Pour Point, °C	-33	-33	-30	-27
Demulsion Time, min	10	10	10	10
Copper Corrosion, 100°C/3hr	1-a	1-a	1-a	1-a
Rust Prevention, sea water	Pass	Pass	Pass	Pass

ZIC SUPERVIS X 32 / X 46 / X 68 / X 100

Hydraulic Oil for Outdoor Construction Equipment

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Outstanding anti-wear property by forming protective film on metal surface to extend the lifespan of hydraulic components
- Excellent oxidation and thermal stability preventing the formation of sludge, varnish and deposits to reduce maintenance repairs
- Enhanced demulsibility from water preventing corrosion and wear and anti-foaming property to ensure efficient hydraulic system
- High viscosity index to maintain hydraulic system operation in a wide operating temperature range of lower and higher temperatures

DESCRIPTION

ZIC SUPERVIS X is a synthetic hydraulic oil products made of carefully selected high quality base oil including Group III base oil, YUBASE, and advanced additives to provide excellent hydraulic oil performances of anti-wear, oxidation/thermal stability, rust protection, low sludge/varnish/deposit formation, good demulsibility and friction property required for mobile hydraulic system. It also has high viscosity index to ensure applications in a wider range of outdoor temperature to maintain excellent operation of hydraulic equipment in both lower and higher temperatures.

SPECIFICATION

SUPERVIS X 32 / SUPERVIS X 46 / SUPERVIS X 68 / SUPERVIS X 100

- DIN 51524 Part 3 HVLP, Eaton Vickers M-2950-S/I-286-S, AFNOR NFE 48-603 HV, ISO 11158 HV, Cincinnati P-68, 69, 70, Sauer Danfoss 520L0463

RECOMMENDATIONS

- Recommended for outdoor construction machinery (excavators, bulldozers, loaders, cranes, backhoes, graders, compactors, etc.)

TYPICAL PROPERTIES

ISO VG	32	46	68	100
ASTM Color	L0.5	L0.5	0.5	1.0
Density, g/cm^3	0.844	0.848	0.863	0.875
Kinematic, Viscosity at 40°C, cSt	32.1	45.3	67.2	95.2
Kinematic, Viscosity at 100°C, cSt	6.28	8.04	10.82	13.91
Viscosity Index	150	151	152	149
TAN, mgKOH/g	0.25	0.25	0.26	0.25
Flash Point, °C	232	246	248	256
Pour Point, °C	-42	-39	-39	-36
Demulsion Time, min	10	10	10	10
Copper Corrosion, 100°C/3hr	1-a	1-a	1-a	1-a
Rust Prevention, sea water	Pass	Pass	Pass	Pass

ZIC VEGA
32 / 46 / 68

Hydraulic Oil for Heavy-Duty Equipment

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Outstanding anti-wear property by forming protective film on metal surface to extend the lifespan of hydraulic components
- Excellent oxidation and thermal stability preventing the formation of sludge, varnish and deposits to reduce maintenance repairs
- Enhanced demulsibility from water preventing corrosion and wear and anti-foaming property to ensure efficient hydraulic system
- Superior friction property for smooth operation of mobile hydraulic system

DESCRIPTION

ZIC VEGA is a synthetic hydraulic oil products made of carefully selected high quality base oil including Group III base oil, YUBASE, and advanced additives to provide excellent hydraulic oil performances of anti-wear, oxidation/thermal stability, rust protection, low sludge/varnish/deposit formation, good demulsibility and friction property required for mobile hydraulic system.

SPECIFICATION

VEGA 32 / VEGA 46 / VEGA 68

- Exceeds the requirements of Denison HF-0, HF-2 and DIN 51524 part 2, MIL-L-17672D, US Steel 126
- Cincinnati Machine P-68 (ISO 32), P-70 (ISO 46), P-69 (ISO 68)
- Eaton (Vickers) M2950-S (35VQ25) and I-286-S (V-104C)

RECOMMENDATIONS

- Recommended for mobile hydraulic system
  (construction, agriculture, mining, transportation, forestry, etc.)

TYPICAL PROPERTIES

ISO VG	32	46	68
ASTM Color	L0.5	L0.5	1.0
Density, g/cm^3	0.844	0.861	0.861
Kinematic, Viscosity at 40°C, cSt	32.6	45.3	67.4
Kinematic, Viscosity at 100°C, cSt	5.98	6.96	9.22
Viscosity Index	131	110	113
TAN, mgKOH/g	0.26	0.70	0.26
Flash Point, °C	238	246	256
Pour Point, °C	-36	-33	-30
Demulsion Time, min	10	10	10
Copper Corrosion, 100°C/3hr	1-a	1-a	1-a
Rust Prevention, sea water	Pass	Pass	Pass

SUPER GEAR EP

68 / 100 / 150 / 220 / 320 / 460 / 680

Industrial Gear Oil - Outstanding EP performance for Wear Protection

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Outstanding extreme pressure performance to prevent wear and metal stress that occur with increasing loads
- Exceptional thermal and oxidation stability to minimize sludge and deposit formation to ensure service life
- Superior rust and corrosion protection film formed on metal surface extending gear component lifespan

DESCRIPTION

SK SUPER GEAR EP is a high performance industrial gear oil of extreme pressure (EP) performance developed for heavy load carrying gears working under severe operation condition. It significantly reduces friction and prevents wear and scuffing, extending gear component lifespan and reduce maintenance cost. It exceeds the requirements of major industrial standards; DIN, US Steel, Cincinatti and David Brown.

SPECIFICATION

GEAR EP 68 / GEAR EP 100 / GEAR EP 150 / GEAR EP 220 / GEAR EP 320 / GEAR EP 460 / GEAR EP 680

- Exceeds the requirements of US steel 222, 224; AGMA 250.04; DIN 51517 Part-3; David Brown 53.101; Cincinnati Machine P-59

RECOMMENDATIONS

- Recommended for high-temperature, high-load gears in steel production; industrial gears and rolling gears under high temperature and heavy loads; pulp and paper machine gears requiring demulsification at high temperature

TYPICAL PROPERTIES

ISO VG	68	100	150	220	320	460	680
ASTM Color	L1.0	L1.0	L1.5	L2.0	L2.0	L2.5	L2.5
Density, g/cm^3	0.873	0.888	0.886	0.891	0.895	0.903	0.903
Kinematic, Viscosity at 40°C, cSt	65.28	96.13	147.8	214.9	312.4	455.1	636.5
Kinematic, Viscosity at 100°C, cSt	8.982	11.04	15.07	19.38	24.85	31.65	39.57
Viscosity Index	112	100	102	102	102	100	100
Flash Point, °C	230	230	240	250	250	250	280
Pour Point, °C	-30	-27	-30	-24	-15	-12	-12
Demulsion Time, min	10	10	10	12	12	18	22
Copper Corrosion, 100°C/3hr	1-a	1-a	1-a	1-a	1-a	1-a	1-a
Rust Prevention, sea water	Pass	Pass	Pass	Pass	Pass	Pass	Pass

TURBINE OIL
32 / 46 / 68

Premium Turbine Oil with High VI and Long Life Performance

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Excellent thermal and oxidation stability to ensure long service life
- Outstanding rust prevention combined with improved water/air separation performance to protect the system components
- Very high viscosity index to maintain strong film thickness

DESCRIPTION

SK TURBINE OIL is a premium turbine oil with high viscosity index to ensure strong oil film thickness and excellent rust and oxidation (R&O) performance. It is developed to minimize sludge and vanish formation in the system and to separate water and air from the oil in the tank, protecting the system components and providing long service life.

SPECIFICATION

TURBINE OIL 32 / TURBINE OIL 46 / TURBINE OIL 68

- Cincinnati Milacron P-38, P-55, P-54 and P-57
- General Electric GEK-32568, GEK 107395
- Siemens TLV 9013 04
- U.S. Military MIL-H-17672D
- DIN 51524 Part 1; 51515 Part 1

RECOMMENDATIONS

- Recommended for geared turbine propulsion units, thrust bearings, ring oiled journal bearings and various auxiliary machinery such as turbo chargers, pumps, governors etc.

TYPICAL PROPERTIES

ISO VG	32	46	68
ASTM Color	L0.5	L0.5	L0.5
Density, g/cm^3	0.845	0.852	0.866
Kinematic, Viscosity at 40°C, cSt	32.91	45.36	64.21
Kinematic, Viscosity at 100°C, cSt	6.041	7.391	8.99
Viscosity Index	130	126	114
TAN, mgKOH/g	0.09	0.09	0.1
Flash Point, °C	240	240	250
Pour Point, °C	-15	-18	-18
Demulsion Time, min	10	10	10
Copper Corrosion, 100°C/3hr	1-a	1-a	1-a
Rust Prevention, sea water	Pass	Pass	Pass
TOST mg KOH/g	0.07	0.07	0.07

COMPRESSOR OIL
RS 46 / RS 68

Premium Compressor Oil for Rotary Air Compressors

INDUSTRIAL OIL

GENERAL CHARACTERISTICS __

- Outstanding anti-wear property by forming protective film on metal surface to extend the lifespan of compressor components
- Excellent thermal and oxidation stability to minimize sludge and varnish formation to ensure long service life
- Outstanding rust prevention combined with improved water/air separation performance to protect the system components

DESCRIPTION __

SK COMPRESSOR OIL RS is formulated with premium quality high viscosity index base oil combined with carefully selected additives to satisfy the lubrication requirement of all kind of rotary air compressors operating under moderate to severe operation condition. It provides excellent thermal and oxidation stability at high temperature to minimize sludge and varnish formation to ensure long service life.

SPECIFICATION __

SK COMPRESSOR OIL RS 46 / SK COMPRESSOR OIL RS 68

- DIN 51506, air compressor lubricant standard, Grade VDL
- Product development through field test of air compressors compressor manufactuer in Korea

RECOMMENDATIONS __

- Recommended for rotary screw, rotary vane air compressors, circulating systems and industrial equipment requiring R&O (Rust & Oxidation) and anti-wear performance

TYPICAL PROPERTIES__

ISO VG	46	68
ASTM Color	0.5	L1.0
Density, g/cm^3	0.856	0.871
Kinematic, Viscosity at 40°C, cSt	44.7	65.6
Kinematic, Viscosity at 100°C, cSt	7.25	9.00
Viscosity Index	123	113
TAN, mgKOH/g	0.23	0.21
Flash Point, °C	250	256
Pour Point, °C	-30	-27
Demulsion Time, min	10	10
Copper Corrosion, 100°C/3hr	1-a	1-a
Rust Prevention, sea water	Pass	Pass

SUPERMAR CYL and AS

CYL 25 / CYL 40 P / CYL 70 P / CYL 100 / AS

Cylinder Oil and Crankcase Oil for Crosshead Marine Diesel Engines

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Excellent thermal and oxidation stability to ensure long service life
- Outstanding rust prevention combined with improved water/air separation performance to protect the system components
- Very high viscosity index to maintain strong film thickness

DESCRIPTION

SUPERMAR CYL products provide excellent protection against wear, piston deposit reduction and superior cylinder cleanliness. It is designed to cater for engines operating on all the residual fuels as defined in current international marine fuel quality standards and guidelines. SK SUPERMAR AS is a premium quality lubricant for crosshead diesel engine crankcase system. It is blended with oxidation and corrosion inhibitors including alkalinity, enhanced detergency and load carrying properties.

SPECIFICATION

SUPERMAR CYL 25 / SUPERMAR CYL 40 P / SUPERMAR CYL 70 P / SUPERMAR CYL 100 / SUPERMAR AS

- SK SUPERMAR CYL 40, CYL 70 plus is approved by many kind of Diesel engine manufacturers and satisfies the requirements of the famous engine manufacturers, MAN B&W and Wärtsila.

RECOMMENDATIONS

- Recommended for geared turbine propulsion units, thrust bearings, ring oiled journal bearings and various auxiliary machinery such as turbo chargers, pumps, governors etc.

TYPICAL PROPERTIES

SK SUPERMAR	CYL 25	CYL 40 P	CYL 70 P	CYL 100	AS
SAE Viscosity Grade	50	50	50	50	30
TBN, mgKOH/g	25	40	70	100	7.0
Specific Gravity, 15°C/4°C	0.910	0.920	0.932	0.952	0.890
Kinematic, Viscosity at 40°C, cSt	226.0	250.5	222.0	242.0	105.0
Kinematic, Viscosity at 100°C, cSt	20.00	21.40	20.60	21.20	11.90
Viscosity Index	102	102	108	103	102
Pour Point, °C	-17.5	-17.5	-15.0	-15.0	-15.0
Flash Point, °C	260	260	260	260	260

SUPERMAR TP

13TP / 24TP / 30TP / 40TP / 50TP

Trunk Piston Engine Oil (TPEO) for Medium Speed Diesel Engines

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Longer oil service life
- Superior alkalinity (Total Base Number) retention
- Excellent water shedding and readily cleaned by centrifuging

DESCRIPTION

SK SUPERMAR TP series products are range of engine oils developed for use in medium speed diesel engines in marine vessel and power generation applications. Engineered using high quality base oils, SK SUPERMAR TP series outperforms other trunk piston diesel engine oils found in the market by incorporating a unique formulation of additive technology.

SPECIFICATION

SUPERMAR 13TP / SUPERMAR 24TP / SUPERMAR 30TP / SUPERMAR 40TP / SUPERMAR 50TP

- Meets the engine oil specifications for all major medium speed engine manufacturers with approvals from MAN B&W and Wärtsila

RECOMMENDATIONS

- Recommended for medium speed diesel engines in marine vessels and power generation applications

TYPICAL PROPERTIES

SK SUPERMAR	13TP		24TP		30TP		40TP		50TP	
	30	40	30	40	30	40	30	40	30	40
SAE Viscosity Grade	30	40	30	40	30	40	30	40	30	40
TBN, mgKOH/g	13	13	24	24	30	30	40	40	50	50
Specific Gravity, 15°C/4°C	0.893	0.897	0.896	0.904	0.898	0.907	0.902	0.913	0.908	0.916
Kinematic, Viscosity at 40°C, cSt	103.0	142.0	99.0	140.0	99.0	138.0	95.3	136.0	98.0	140.0
Kinematic, Viscosity at 100°C, cSt	11.90	14.50	11.90	14.50	11.90	14.50	11.90	14.50	11.90	14.60
Viscosity Index	105	99	107	102	110	104	116	106	107	102
Pour Point, °C	-20.0	-15	-20.0	-15.0	-20.0	-15.0	-20.0	-20.0	-20.0	-15.0
Flash Point, °C	255	260	255	260	260	260	250	255	250	255

* Typical test data are average values only

ZIC MARINE 2T

Premium Engine Oil for 2-Stroke Outboard Engines

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- ZIC MARINE 2T minimizes wear, helps prevent combustion chamber deposits, ring sticking, piston burning, port blocking and spark plug fouling

DESCRIPTION

ZIC MARINE 2T is a superior quality 2-stroke engine oil specifically designed for water-cooled, high-revving engines with pre-mix injection systems. Premium base stocks are blended with a modern ashless detergent additive package to provide fortification for maximum performance in outboard engines.

SPECIFICATION

MARINE 2T

- National Marine Manufacturers Association (NMMA), TC-W3 (approval No.R-50931) approved
- Exceeds the requirements of Mercury, OMC, Johnson, Evinrude, Yamaha, Suzuki and other leading manufacturers' where NMMA, TC-W3 is specified

RECOMMENDATIONS

- Recommended for water-cooled, high-revving engines with pre-mix injection systems

TYPICAL PROPERTIES

Product Name	MARINE 2T
Color	BLUE
Total Base Number (TBN), mgKOH/g	9.87
Sulfated Ash, wt1%	0.02
Density, g/cm^3	0.865
Kinematic Viscosity at 40˚C, cSt	44.36
Kinematic Viscosity at 100˚C, cSt	8.095
Viscosity Index	155
Flash Point, °C	120
Pour Point, °C	-45

SK UTF

Multi-Application Lubricant - Universal Tractor Fluid

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Outstanding wear protection from contaminants at high operating temperature and pressure
- Excellent balance between frictional property and oil film thickness to ensure precise clutch and brake operation
- Enhanced thermal and oxidation stability to minimize sludge and deposit formation to provide long service life

DESCRIPTION

SK UTF (Universal Tractor Fluid) is a high quality multi-application lubricant developed to meet lubrication requirement of farm tractors in transmissions, differentials, final drive planetary gears, wet brakes/clutches and hydraulic system. It provides excellent performances of wear protection, thermal and oxidation stability and friction characteristics to ensure long service life.

SPECIFICATION

SK UTF
• Exceeds the requirements of tractor transmissions, differentials and wet disc brakes of many OEMs

RECOMMENDATIONS

- Recommended for farm tractors, construction equipment, off-highway vehicles and industrial tractors

TYPICAL PROPERTIES

Product Name	UTF
Density 15°C, g/cm3	0.859
Kinematic Viscosity at 40°C, cSt	55.08
Kinematic Viscosity at 100°C, cSt	9.509
Viscosity Index	156
Flash Point, °C	240
Pour Point, °C	-36
Brookfield Viscosity at -18°C, cP	2,000
MRV at -25°C, cP	5,000

ZIC SUPER A 50 / 55

High Quality Antifreeze Coolant

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Carefully selected inhibitors provide anti-foam, anti-rust and anti-corrosion properties
- ZIC SUPER A provides excellent cooling system protection under the most severe conditions when used as recommended
- ZIC SUPER A is safe to use in systems containing aluminum components

DESCRIPTION

ZIC SUPER A is a high quality antifreeze (ethylene glycol based) long life coolant that provides outstanding performance in most applications. ZIC SUPER A helps to keep vehicle's engine temperature stable in all climates by transferring heat from the engine to the radiator. ZIC SUPER A is conveniently pre-diluted and mixed with a 50:50 ratio of water and antifreeze.

SPECIFICATION

SUPER A 50 / SUPER A 55

- Meets ASTM D 3306, KS M2142, BS6580, JIS K2234
- Meets specifications of many major automobile manufacturers

RECOMMENDATIONS

- All vehicle types such as passenger car, heavy truck and bus
- High-speed and heavy-duty vehicles that require a high boiling point and load-bearing performance
- Vehicles for adverse driving such as high-speed racing and mountainous terrain

TYPICAL PROPERTIES

Product Name	SUPER A 50	SUPER A 55
Color	GREEN	GREEN
Freezing Point, °c	-35	-45
pH	8.20	8.22
Specific Gravity, 15°c°C	1.078	1.081
Water content	50%	45%
Metal corrosion test	Pass	Pass

ZIC DOT 3 / 4

Premium Brake Fluid for All Vehicles with DOT 3 or DOT 4 Requirements

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- ZIC DOT maintains a higher boiling point than conventional brake fluids
- ZIC DOT is engineered to provide maximum protection against vapor lock brake failure, even under extremely harsh conditions
- ZIC DOT provides superior fluidity at low temperatures for optimum braking response

DESCRIPTION

ZIC DOT is a non-petroleum based brake fluid used in the hydraulic brake system of vehicles. ZIC DOT is a high quality brake oil recommended for all U.S., Japanese, Korean and European vehicles with DOT 3 or DOT 4 requirements.

SPECIFICATION

DOT 3 / DOT 4

- Exceeds DOT-3 and DOT-4 specification
- Exceeds SAE J1703, FMVSS No.116, ISO 4925, KS M 2141

RECOMMENDATIONS

- All vehicle types such as passenger car, heavy truck and bus
- High-speed and heavy-duty vehicles that requires a high boiling point and load-bearing performance
- Vehicles for adverse driving such as high-speed racing and mountainous terrain

TYPICAL PROPERTIES

Product Name	DOT 3	DOT 4
Boiling Point, °c	229	261
Wet Boiling Point, °c	147	165
Kinematic, Viscosity at -40°C, cSt	1.331	1.090
Kinematic, Viscosity at 100°C, cSt	2.23	2.35
pH	9.18	8.35
Metal corrosion test	Pass	Pass

ZIC CLEANSER

Premium Engine Cleanser - Automotive Parts

INDUSTRIAL OIL

DESCRIPTION

ZIC CLEANSER is a mineral-based engine cleaner suitable for gasoline, diesel, and LPG passenger vehicles. It uses special cleaning dispersant additives to thoroughly remove deposits and sludge from inside the engine, thereby extending the engine's lifespan.

RECOMMENDATIONS

- Gasoline, Diesel, LPG engines of passenger cars

HOW TO USE

1. Drain the existing engine oil
2. Pour in ZIC CLEANSER and let the engine idle for 10 minutes
3. Drain ZIC CLEANSER
4. Replace the oil filter and refill with fresh ZIC engine oil

ZIC CLEANSER VOLUME USAGE

Engine Oil Tank Capacity	ZIC CLEANSER Usage
4L	4L
6L	6L
8L	8L

ZIC ROYAL GREASE 0/1/2/3

Premium Multipurpose Grease for Industrial and Automotive Applications

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Outstanding mechanical stability to endure operation condition
- Moderate temperature resistance and good adhesive property to stay in place under operating condition
- Excellent oxidation stability and corrosion prevention performance

DESCRIPTION

ZIC ROYAL GREASE is a lithium soap thickened premium grease designed for general purpose application where no specific requirement is made. It provides superior mechanical stability, achieved through an advanced grease manufacturing process. It also has oxidation stability, water resistance, corrosion prevention performance to protect and maintain equipment.

SPECIFICATION

ROYAL GREASE 0 / ROYAL GREASE 1 / ROYAL GREASE 2 / ROYAL GREASE 3

- Recommended temperature range : -20°c to 120°c

RECOMMENDATIONS

- Chassis lubrication for automotive including bushings, cams, spline, etc. as well as lubrication for industrial and off-road equipment

TYPICAL PROPERTIES

NLGI Grade		0	1	2	3
Penetration	0W 0.1mm 60W 0.1mm 100000W 0.1mm	372 365 368	320 315 365	279 272 325	244 235 300
Color-GR		Amber	Amber	Amber	Amber
Copper Corrosion, 100°C/24hr		No Corrosion	No Corrosion	No Corrosion	No Corrosion
Evaporation 99°C wt%		0.25	0.28	0.20	0.18
Oxidation Stability 100h kg/cm		0.23	0.24	0.20	0.25
Dropping Point, °C		210	205	215	210
Oil Separation	100°C % 130°C %	-	5.5 7.0	2.4 3.8	1.8 2.6

CROWN GREASE
GOLD 0 / 1 / 2 / 3

Multipurpose Lithium Soap-Thickened Grease

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Moderate temperature resistance and good adhesive property to stay in place under operating condition
- Adequate protection against wear for moderate load application
- Excellent oxidation stability and corrosion prevention performance

DESCRIPTION

CROWN GREASE is a lithium soap thickened grease designed for general purpose application where no specific requirement is made. It can be used at high temperature and has good pumpability to apply at low temperature. It also has oxidation stability, water resistance, corrosion prevention performance to protect and maintain equipment.

SPECIFICATION

CROWN GREASE GOLD 0 / CROWN GREASE GOLD 1 / CROWN GREASE GOLD 2 / CROWN GREASE GOLD 3

- Recommended temperature range : -20°c to 120°c

RECOMMENDATIONS

- Suitable to use in both industrial and automotive applications for a wide range of plain and rolling bearings

TYPICAL PROPERTIES

NLGI Grade		0	1	2	3
Penetration	0W 0.1mm 60W 0.1mm 100000W 0.1mm	367 363 385	320 318 363	278 274 320	242 236 300
Color-GR		Amber	Amber	Amber	Amber
Copper Corrosion, 100°C/24hr		No Corrosion	No Corrosion	No Corrosion	No Corrosion
Evaporation 99°C wt%		0.20	0.30	0.24	0.20
Oxidation Stability 100h kg/cm		0.23	0.25	0.20	0.24
Dropping Point, °C		210	205	210	210
Moisture Class		A	A	A	A
Oil Separation	100°C % 130°C %	-	5.5 7.0	2.4 3.8	1.8 2.6

CROWN GREASE
EP 000 / 00 / 1 / 2 / 3

Multipurpose Lithium Soap-Thickened Grease - EP Type

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Excellent load carrying capacity to handle heavy loads and shocks, reducing wear and extending component life
- Outstanding water resistance and mechanical stability to maintain consistency and performance
- Enhanced oxidation stability and corrosion prevention performance

DESCRIPTION

CROWN GREASE EP is a lithium soap thickened grease with EP (Extreme Pressure) performance designed to provide protection against high pressure and heavy loads and prevent metal-to-metal contact under extreme conditions. It also has oxidation stability, water resistance, corrosion prevention performance to protect and maintain equipment.

SPECIFICATION

CROWN GREASE EP 000 / 00 / 1 / 2 / 3

- Recommended temperature range: -20°C to 120°C

RECOMMENDATIONS

- Chassis lubrication for automotive including bushings, cams, spline, etc. as well as lubrication for industrial and off-road equipment

TYPICAL PROPERTIES

NLGI Grade		000	00	1	2	3
Penetration	0W 0.1mm 60W 0.1mm 100000W 0.1mm	470 458 -	419 414 -	322 319 358	282 274 321	240 235 300
Color-GR		Amber	Brown	Brown	Brown	Brown
Copper Corrosion, 100°C/24hr		No Corrosion	No Corrosion	No Corrosion	No Corrosion	No Corrosion
Evaporation 99°C wt%		-	-	0.30	0.33	0.08
Dirts	25㎛	-	-	1190	1010	1230
	75㎛	-	-	185	147	210
	125㎛	-	-	0	0	0
Oxidation Stability 100h kg/cm		0.31	0.25	0.20	0.12	0.01
Dropping Point, °C		171	193	214	223	223
EP, Timken, kg		18.2	12.2	17.7	18.1	18.1

CROWN
WHEEL BEARING GREASE 2 / 3

Lithium Complex Grease for Automotive Wheel Bearing

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Moderate temperature resistance and good adhesive property to stay in place under operating condition
- Adequate protection against wear for moderate load application
- Excellent oxidation stability and corrosion prevention performance

DESCRIPTION

CROWN WHEEL BEARING GREASE is a premium-grade lithium complex grease, designed to exceed general multipurpose-grease requirements. It has a sustainable lithium complex soap and excellent oxidation stability to endure harsh operation condition of high temperature and high pressure in wheel bearing.

SPECIFICATION

CROWN WHEEL BEARING GREASE 2 / CROWN WHEEL BEARING GREASE 3

- Recommended temperature range : -20°c to 150°c

RECOMMENDATIONS

- Bus, truck and construction equipment wheel bearings
- Lubricating farm machinery parts and various other commercial vehicles
- Bearings and mechanical parts

TYPICAL PROPERTIES

NLGI Grade		2	3
Penetration	0W 0.1mm 60W 0.1mm 100000W 0.1mm	270 272 332	237 240 312
Color-GR		Yellow	Yellow
Copper Corrosion, 100°C/24hr		No Corrosion	No Corrosion
Evaporation 99°C wt%		0.13	0.12
Dirts	10㎛	400	500
	25㎛	100	100
	75㎛	0	0
	125㎛	0	0
Oxidation Stability 100h kg/cm		0.2	0.14
Dropping Point, °C		321	321
Oil Separation 100°C %		1.2	0.8

CROWN GREASE HT 2 / 3

High Temperature Grease - Lithium Complex Type

INDUSTRIAL OIL

GENERAL CHARACTERISTICS

- Excellent high temperature resistance compared to standard lithium grease, typically up to 150°C and sometimes even higher
- Outstanding water resistance to water washout and mechanical stability to maintain consistency and performance under mechanical stress
- Enhanced oxidation stability to extend service life and corrosion protection to prevent metal surfaces from rust and corrosion

DESCRIPTION

CROWN GREASE HT is a lithium complex grease providing high temperature performance, mechanical stability and resistance to water and oxidation stability to ensure versatile and reliable choice for various demanding applications. It also has oxidation stability, water resistance, corrosion prevention performance to help prolong the service life.

SPECIFICATION

CROWN GREASE HT 2 / CROWN GREASE HT 3

- Recommended temperature range: -20°C to 150°C

RECOMMENDATIONS

- Industrial and marine applications, chassis components and farm equipment
- IRolling bearings including wheel bearing in operation condition of vibration and higher speeds

TYPICAL PROPERTIES

NLGI Grade		2	3
Penetration	0W 0.1mm 60W 0.1mm 100000W 0.1mm	270 272 332	237 240 312
Color-GR		Yellow	Yellow
Copper Corrosion, 100°C/24hr		No Corrosion	No Corrosion
Evaporation 99°C wt%		0.12	0.13
Dirts	10㎛	500	400
	25㎛	100	100
	75㎛	0	0
	125㎛	0	0
Oxidation Stability 100h kg/cm		0.21	0.15
Dropping Point, °C		320	321
Oil Separation 100°C %		1.3	0.9

ZIC PRODUCT CHART

Category		SK	Shell	Mobil	Castrol
HDDEO	Top Tier	ZIC Ultra 5W-30	-	Delvac 1™ ESP 5W-30	Vecton 5W-30 F-Trucks
		ZIC X9000 10W-40	Rimula R6 LM 10W-40	Delvac XHP™ ESP 10W-40	Vecton 10W-40
	Premium	ZIC X8000 FE 10W-30	Rotella® T5 10W-30	Delvac MX™ 10W-30	Vecton Long Drain 10W-30
		ZIC X8000 FE 10W-40	Rimula R5 LE 10W-40	Delvac Modern™ 10W-40 Advanced Protection	Vecton Long Drain 10W-40
		ZIC X7000 15W-40	Rimulla R4 L SAE 15W-40	Delvac Modern™ 15W-40 Full Protection	Vecton 15W-40
		ZIC X6000 15W-40	Rimula R3 MV SAE 15W-40	Delvac™ MX 15W-40	Vecton 15W-40
		ZIC X5000 15W-40	Helix HX5 Diesel 15W-40	Delvac Legend™ SAE 15W-40 Heavy Duty	CRB Thermomax 15W-40
	Regular	ZIC X3000 15W-40	Rimula R2 EXTRA	Delvac Modern™ SAE 15W-40 Super Defense	CRB Multi 15W-40
PCMO	Top Tier	ZIC TOP 0W-40	Helix Ultra 0W-40	1 0W-40	Edge 0W-40
		ZIC TOP LS 5W-30	Helix Ultra ECT 5W-30	1 ESP 5W-30	Edge 5W-30 LL
		ZIC X9 5W-40	Helix HX7 SP 5W-30	Super™ All-In-One Protection 5W-40	EDGE 5W-40 API SP
		ZIC X9 FS 5W-30	Helix HX7 ECT 5W-30	1TM ESP LV 0W-30	Magnatec 5W-30 SN/C3
		ZIC X9 LS 5W-30, 5W-40	Helix HX7 ECT 5W-30	SuperTM 3000 5W-40	Edge 5W-30K ACEA C3
	Premium	ZIC X7 5W-30	-	-	Edge Pickup 5W-30 A3/B4-21
		ZIC X7 LS 5W-30	Helix ECO ECT C2 5W-30	-	GTX 5W-30 SN/C3
		ZIC X7 FE 5W-20, X7 5W-30	Helix ECO 5W-30	Super 1000 5W-30	GTX 5W-30
		ZIC X7 LPG 5W-30	Helix ECO 5W-30	-	-
	Regular	ZIC X5 10W-30	-	-	-
		ZIC X3 20W-50	-	Super™ Everyday Protection 20W-50 SP/CF	GTX Pickup 20W-50 CF-4
Hybrid		ZIC X9 Hybrid 0W-16, 0W-20	Helix Ultra ESP 0W-20	Hybrid 0W-20	Magnatec 0W-20 Hybrid
		ZIC X7 Hybrid 0W-16, 0W-20	Helix HX8 SP 0W-20	Super™ All-In-One Protection 0W-20	

Category		SK	Shell	Mobil	Castrol
MCO	Top Tier	ZIC M9 4T 10W-40	ADVANCE LONG RIDE 10W-40	SUPER RACING 4T 10W-40	POWER 1 ULTIMATE BIKE 5W-40
		ZIC M9 4AT 10W-40	ADVANCE ULTRA SCOOTER 5W-40	-	POWER 1 ULTIMATE SCOOTER 5W-40
	Premium	ZIC M7 4T 10W-40	ADVANCE AX7 10W-40	SUPER MOTO 4T 10W-40	POWER 1 4T 10W-40
		ZIC M7 4AT 10W-40	-	-	POWER 1 SCOOTER 10W-40
	Regular	ZIC M5 4T 20W-40	ADVANCE AX5 15W-40	SUPER MOTO 4T 20W-40	ACTIV 4T 20W-40
Others	Transmision fluids	ZIC ATF 3	Spirax S5 ATF X	ATF 3309	ATF Dex III
		ZIC ATF D6	Spirax S6 ATF X	™ Dexron-VI ATF	Transmax ATF DEXRON®-VI
		ZIC ATF Multi	Spirax S6 ATF 134M	Multipurpose ATF	Transmax ATF DEX/MERC Multivehicle
		ZIC ATF Multi LF	Spirax S6 ATF X	1™ Synthetic LV ATF HP	-
		ZIC G-5	Spirax S2 A	lube HD	Transmax Axle
		ZIC G-EP	Spirax S2 G	lube GX	Transmax Manual
	Universal Transmission Fluid	SK UTF	Spirax S4 TXM	fluidTM 424	-
	Hydraulic oil	VEGA	Hydraulic S1 M	Hydraulic AW	HYSPIN
		VEGA EX	Hydraulic S1 V	-	HYSPIN HVI
		ZIC SV AW	AW Hydraulic Oil S2	HYDRAULIC AW	Hyspin AWS
	Turbine oil	Turbine Oil	Turbo Oil T	DTE Oil Named Series	-
		Turbine Oil EP	Turbo Oil S4 GX	-	-
		Turbine Oil GT	-	DTE™ 800 Series	-
	Industrial Gear Oil	SUPERGEAR EP	Omala S2 G	gear 600 XP Series	ALPHA SP
		SUPERGEAR Syn EP	Omala S4 GXV	gear SHC 600 Series	ALPHASYN EP
	Grease	ZIC Royal Grease	Gadus S2 V100	grease	Spheerol AP
		CG EP	Gadus S2 V220	grease™ EP	Spheerol EP
		WBG	Gadus S2 V220 2	grease XHP 220 series	® WB Grease
	Others	ZIC DOT-4	Brake Fluid DOT 4	™ Brake Fluid DOT 4	Brake Fluid DOT 4
		ZIC SUPER A 50	Coolant Antifreeze	Coolant Extra Ready Mixed -24°C	Radicool

ZIC GLOBAL STORE

Area	Nation	Company Name	Information
EAST ASIA & PACIFIC	China	Sk Enmove (Tianjin) Co., Ltd.	11th Floor, Building B, 33 Xiaoyun Road, Chaoyang District, 100027 P.R. China
			-
			lubrjw@sk.com
			-
	Japan	Ym Networks Corporation.	7TH FLOOR, 77, BANPO-DAERO, SEOCHO-GU, SEOUL, REPUBLIC OF KOREA
			+82 2 3474 2711
			hbkim@ymgroup.co.kr
			http://www.ymsc.co.kr/
	Taiwan	Emma Vehicle Parts Co., Ltd.	NO. 145, SEC. 2,CHENGTAI RD., NEW TAIPEI CITY 248 TAIWAN
			+886 2 2292 1458
			lynn0054@sincerebus.com.tw
			http://www.emmavehicle.com.tw
	Hong Kong	Wealth Dynamic Ltd.	DD120 LOT1795 FRASER VILLAGE, TAI KEI LENG, YUEN LONG, NEW TERRITORIES HONG KONG SAR
			+852 90203083
			marklaukw@gmail.com
			-
	Mongolia	Tavan Bogd Motors LLC	ULAANBAATAR 210136, MONGOLIA CHINGGIS AVENUE, KHAN-UUL
			+976 7509 1111
			skzic-sales@tavanbogd.com
			https://tavanbogd.com/
	Australia	Lubewise Pty Ltd	1628 IPSWICH RD., ROCKLEA, QUEENSLAND 4108, AUSTRALIA
			+61 7 3452 0921
			mhollows@lubewise.com.au
			https://lubewise.com.au/
	Guam	Pacific Petroleum Trading Corp.	P.O. Box 8801, TAMUNING, GUAM 96931
			+1 671 646 5248
			regine@ppcguam.com
			-
	Saipan	South Pacific Galaxy Corp.	P.O. Box 501030 CHALAN LAU LAU, SAIPAN MP96950
			+670 235 1234
			spg.corp@yahoo.com
			-
	Fiji	Dae Myung Fishing Gear Manufacturing Pte Ltd	39 FOSTER ROAD, WALUBAY SUVA, FIJI
			+679 792 8992
			slainbc@gmail.com
			https://www.facebook.com/daemyungtuna

Area	Nation	Company Name	Information
SOUTHEAST ASIA	Thailand	Oranoss Co., Ltd	89 Moo 12 Soi Raikhing 42, Phutthamonthon Sai5 Rd, Raikhing, Sampran, Nakhonpathom 73210 Thailand
			+66 2105 0499
			info@oranoss.com
			https://skzic.oranoss.com
	Cambodia	Sear Hong Co., Ltd	#18, Street Okna Monrithy, Sangkat Phnom Penh Thmey Phnom Penh, Cambodia
			+855 017 677 753
			sear.hong44@gmail.com
			-
	Laos	Kolao Developing Co., Ltd (Lao Pdr)	23 Singha Road, Nongbone Village, Saysettha District, Vientiane Capital, Lao Pdr
			+856 21 256 140
			changhee.son@kolaogroup.com
			http://www.lvmcholdings.net/eng/
	Philippines	SK Techno-Lube Corporation	Unit 300a, Fss Bldg, 1, No. 89 Sct. Castor St., Laging Handa, Diliman, Quezon City, Philippines
			+63 2 709 5949
			vicliu81@yahoo.com.ph
			www.zicph.com
	Vietnam	Tekcom Technology Commercial Co., Ltd	57/454 Minh Khai Street, Vinh Tuy Ward, Hai Ba Trung District, Hanoi, Vietnam
			+84 6680 5256 / +84 923 693 369 (Cell)
			huongle@tekcomvn.com
			-
		Mekong Petrochemical Joint Stock Company	3rd Hamlet, An Thanh Commune, Ben Lu Dist., Long An Province, Vietnam
			+84 272 3635 168 / +84 272 3635 169
			info@mekongpetro.com
			www.mekongpetro.com / www.facebook.com/skzicvietnam
		Chu Lai Automobile Specialized Sealant And Fluid Limted Liability Company (CASF)	Thaco Chu Lai Iz, Tam Hiep Commune, Nui Thanh Dist, Quang Nam Province, Vietnam
			+84 2353 567 161
			casf@thaco.com.vn
			www.thacoindustries.com
		Thanh Cong Service Technical Corporation	Gian Khau Industrial Zone, Gia Tran Commune, Gia Vien Dist., Ninh Binh Province, Vietnam
			+84 437 958 958
			-
			-
	Singapore	Strides Premier Automotive Services Pte. Ltd	23 Changi South Avenue 2 #04-03 Singapore 486443
			+65 8822 8558
			tanboonchye@stridespremier.com.sg
			https://stridespremier.com.sg/
	Malaysia	Kbs Global Sdn. Bhd.	B-1-3, Zenopy, Zenopy Shoplot, Jalan Lp 7/4, Seri Kembangan, 43300, Seri Kembangan Selangor
			+60 16 520 7847
			kbsnetworksb@gmail.com
			https://skzicmalaysia.com/

ZIC GLOBAL STORE

Area	Nation	Company Name	Information
SOUTH ASIA	India	SK Enmove India Pvt. Ltd.	Unit No. 309, 3rd Floor, Sewa Corporate Park, Mg Road, Gurgaon 122002, Haryana, India
			-
			skeni@sk.com
			-
	Pakistan	Hi-Tech Lubricants Limited	1-A, Danepur Road, G.o.r.-1, Lahore, Pakistan
			+92 42 111 645 942
			info@masgroup.org
			https://www.hitechlubricants.com/
EUROPE	Russia	SK Enmove Rus LLC.	Office 1302, Entrance 2, Northern Tower, 10 Testovskaya Street. Moscow, 123112, Russia
			-
			seokjinpark@sk.com
			-
	Greece	Gefa S.A.	K. Karamanli Avenue, Ionia, Thessaloniki, Greece
			+30 2310 783 954
			info@gefa.gr
			https://www.gefa.gr
MIDDLE EAST & AFRICA	UAE	Flow Trading LLC	Dubai Creek Tower, Suite # 19-A, P.O.box: 40492, Baniyas Street, Deira, Dubai, United Arab Emirates
			+971 4 2248999
			maqsood@flowtrad.com
			www.flowtrad.com
	Oman	Best Lube Trading LLC	Barka Industrial Area, Muscat, Oman P.O-1508
			+968 9528 5250
			Nadeem.husain@bestlubes.com
			http://mail.bestlubes.com/
	Bahrain	Flow Trading Bahrain WLL	Warehouse/Off. No. 2, Entrance: W640 Block 701, Tubli Road 120, Kingdom Of Bahrain
			+973 1 7611065
			maqsood@flowtrad.com
			-

Area	Nation	Company Name	Information
MIDDLE EAST & AFRICA	Libya	Doroub Libya Co., Ltd	Flat No 1, Elokhowa Building Aldees Street, Misurata, Libya
			+218 918108361
			kkkshaim@dlc.ly
			https://dlc.ly
	Iraq	Brandlines Inc	#12 Street 9, District 215 Al Kindi Area, International Zone Baghdad, Iraq
			+82 10 9293 9200
			steve@brandlines.kr
			http://www.brandlines.kr/
	Republic of South Africa	Parts-Mall Corporation	50 Herman Street R24 Business Park, Building G Unit 1, Meadowdale Germiston 1401, South Africa
			-
			pma@parts-mall.com
			https://www.parts-mall.co.za/
NORTH & SOUTH AMERICA	U.S.A.	Sk Enmove Americas Inc.	11700 Katy Freeway Suite 900, Houston, TX77079
			-
			beth.fields@sk.com
			-
	Chile	Importadora Alsacia Spa.	Salar De Atacama 1338, Pudahuel, Santiago, Chile
			+56 2 2363 1990
			fespichans@alsaciarepuestos.com
			www.alsaciarepuestos.com
	Bolivia	CTF	Av. Trinidad N. 570, Santa Cruz De La Sierra, Bolivia
			+591 76005855
			guillejurenda@cotas.com.bo
			https://www.facebook.com/CTFrepuestos
	Peru	Miauto SAC	Av. La Marina 3115, San Miguel, Lima, Peru
			+51 992252822
			skzicperu@gmail.com
			http://www.skzic.com.pe

OFFICIAL OEM APPROVALS

SK's products meet the quality standards of prominent motor companies around the world including Mercedes Benz, BMW, Volkswagen, GM and etc.

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Mercedes-Benz

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HDDEO
OEM Approvals

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VOLVO

MAN

Cummins

SCANIA