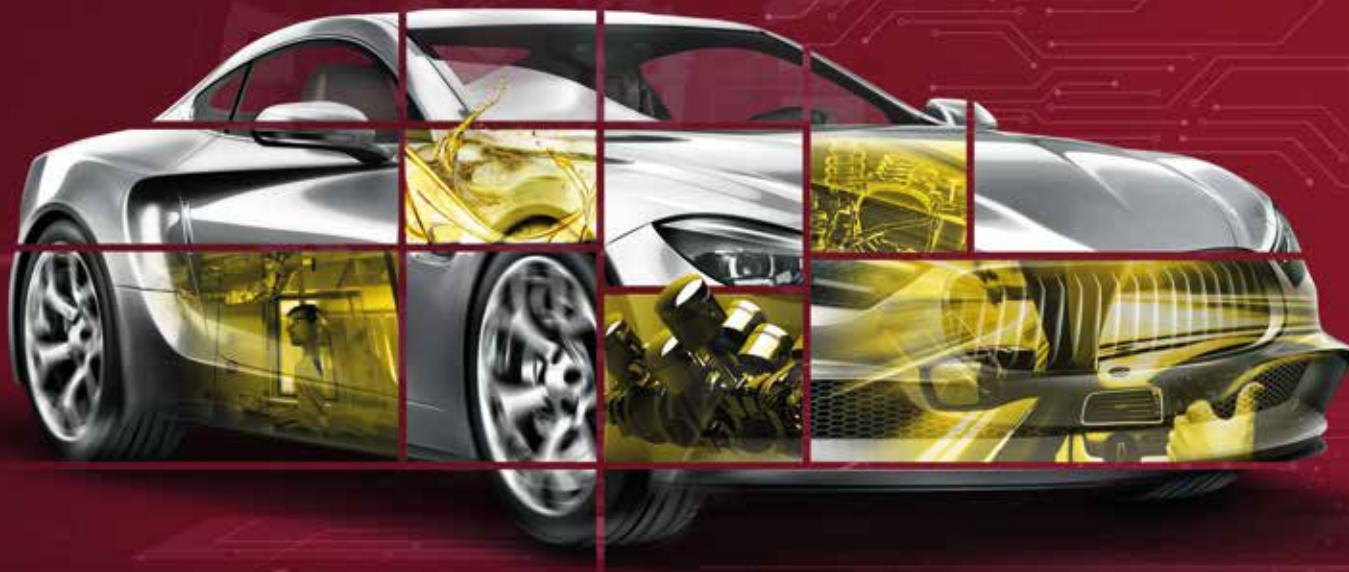


# i-Sint



## Eni Automotive Lubricants

Performance and protection  
run on the same car



### Automotive lubricants and special products



[oilproducts.eni.com](http://oilproducts.eni.com)







Eni's research has developed a complete range of products capable of providing high performance, reliability and engine protection for cars and light commercial vehicles.

The range is divided into different lines that include products specifically formulated to meet the various lubrication needs of all vehicles and is able to provide the right solution to the needs of each user.

In addition to engine oils, to meet further application requirements, Eni offers a series of specialized products such as transmission oils, coolants, brake fluids, greases and car care products.



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# Engine oils

The wide range of **Eni's** passenger **car lubricants** comprises products specially formulated to meet the various lubrication needs of engines, in accordance with the requirements set by the manufacturers.



	Eni i-Sint	Eni i-Sint tech	Eni i-Sint professional	Eni i-Base	Eni i-Base professional
FEATURES	High-performance oils for gasoline or diesel cars, with or without particulate filters. They meet the main performance specifications requested by the manufacturers.	High-performance oils, specifically designed to meet performance specifications requested by individual manufacturers.	Oils dedicated to professional operators, such as garage owners and auto parts dealers, with an excellent price/quality ratio.	Mineral oils dedicated to traditional cars, meeting the main performance specifications.	Mineral oils dedicated to traditional cars, meeting API standards.
TECHNOLOGY	Synthetic technology and Top synthetic	Synthetic technology and Top synthetic	Synthetic technology	Mineral	Mineral



## WHICH ARE THE ACEA LEVELS FOR LIGHT DUTY VEHICLES?

**ACEA** (European Association of Car Manufacturers) is the international body that defines, through laboratory and **engine tests**, the minimum quality levels (specifications) that lubricants must fulfill in order to be used in vehicle engines. These specifications are reported in the vehicle's maintenance manual and they are shown on the container label to indicate the performance level of the product. Due to the continuous evolution of engine design, the **ACEA** specifications are in constant development and it is very important that engine oils claiming an **ACEA** specification on the label be compliant with the latest edition in force (**ACEA 2016**).

There are two **ACEA** performance classes dedicated to light duty vehicles and they are identified with the letters **A/B** and **C**. Class **A/B** covers oils for traditional gasoline and diesel engines; class **C** defines the requirements for "catalyst compatible" engine oils for gasoline or diesel engines with exhaust gas after treatment systems. Within the various classes there is a further distinction based on the **HTHS** viscosity (High Temperature High Shear) value, which gives an important indication on the behaviour of the oil in severe operating conditions.

The table below shows an overview of the main differences between these specifications:

		LOW/MID SAPS <sup>(*)</sup>	FULL SAPS <sup>(*)</sup>
HTHS (mPa.s)	≥ 2.6 and < 2.9	C5	
	≥ 2.9	C1 C2	A5/B5 <sup>(**)</sup>
	≥ 3.5	C3 C4	A3/B3 A3/B4

<sup>(\*)</sup> For further information see "NOT EVERYBODY KNOWS THAT."

<sup>(\*\*)</sup> A5/B5 category can be combined with Low/Mid SAPS categories.



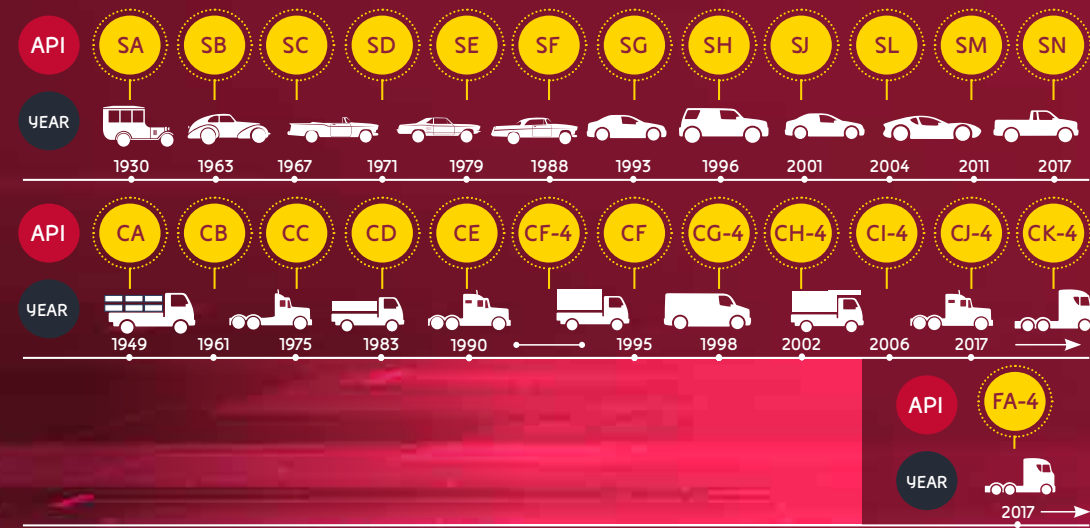




## WHAT ARE THE API SPECIFICATIONS?

**API** (American Petroleum Institute) defines the quality standards for engine oils using two service categories for gasoline ("S") and diesel ("C") engines respectively.

- the two letters are followed by a further progressive indication according to the updates
- products meeting each level are officially suitable where previous levels are required







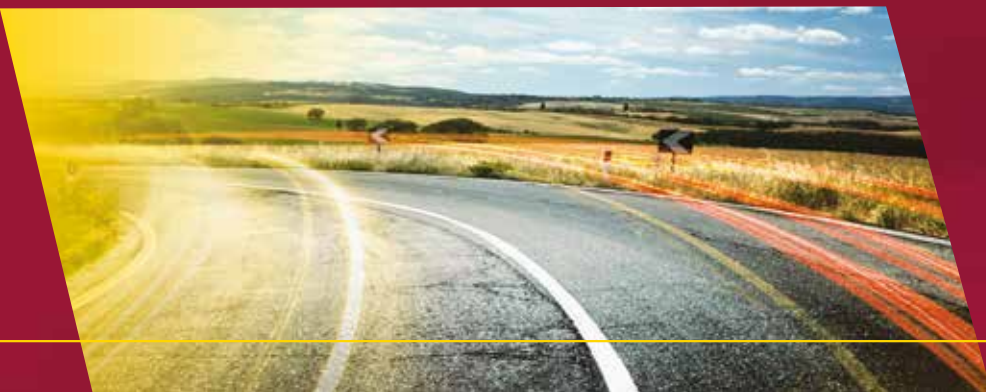
## Eni i-Sint

**Eni i-Sint** is the line of high performance lubricants suitable for lubrication of most of circulating cars.

Thanks to the careful selection of raw materials and an accurate balancing of all the components, the **Eni i-Sint** line ensures high reliability and smooth drive in **all operating conditions, for all types of cars**, from **compact to sport cars**, with **gasoline** or **diesel engines**.

All **Eni i-Sint lubricants** have passed the most severe test protocols required by international bodies (**API, ACEA, ILSAC**) and by the most important car manufacturers.

In addition to tried-and-tested technology products, the **Eni i-Sint** range includes lubricants with modern formulations specifically suitable for cars equipped with particulate filters (**Mid SAPS products**) and very fluid oils whose use, if allowed by the manufacturer, offers a significant reduction in the fuel consumption (fuel economy).



## Eni i-Sint MID SAPS



### 5W-30

top synthetic



ACEA C3  
API SN  
BMW LL-04<sup>(\*)</sup>  
MB-Approval 229.51<sup>(\*)</sup>  
Porsche C30<sup>(\*)</sup>  
VW 504 00 + 507 00<sup>(\*)</sup>

### MS 5W-30

synthetic technology



ACEA C3  
API SN  
BMW LL-04<sup>(\*)</sup>  
MB-Approval 229.51, 229.52<sup>(\*)</sup>  
VW 502 00 + 505 01<sup>(\*)</sup>  
GM Dexos 2 quality

### MS 5W-40

synthetic technology



ACEA C3  
API SN  
BMW LL-04<sup>(\*)</sup>  
MB-Approval 229.51<sup>(\*)</sup>  
VW 505 00 + 505 01<sup>(\*)</sup>  
GM Dexos 2 quality  
Porsche A40<sup>(\*)</sup>

### FE 5W-30

synthetic technology



ACEA C2  
API SN  
meets FIAT 9.55535 S1

### 0W-20

synthetic technology



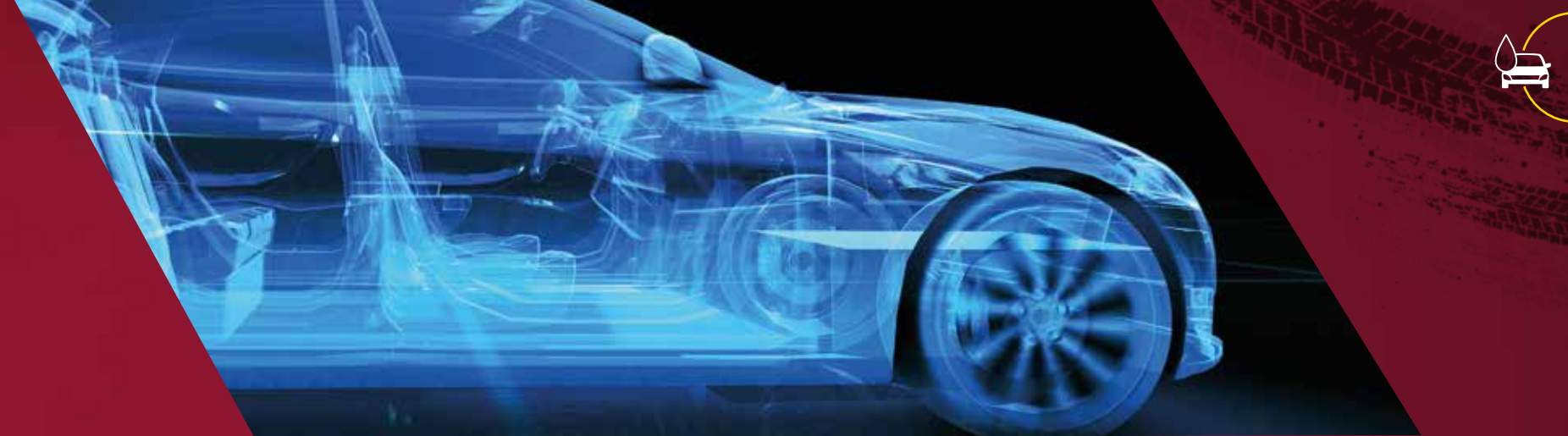
API SN RC  
ILSAC GF-5

<sup>(\*)</sup>Approved



## WHAT IS THE DIFFERENCE BETWEEN "SYNTHETIC TECHNOLOGY" AND "TOP SYNTHETIC" SHOWN IN THE ENI I-SINT LUBRICANT LABELS?

The difference is in the technology of the base oils used. In **top synthetic products**, we use **synthetic high-quality** base stocks, which make it possible to formulate even better **top performance lubricants**. It is important to point out that these definitions offer additional information but this must not constrain the consumer's choice: the suitability for the use of a lubricant must always be based on its **SAE viscosity** grade and **performance specifications**.



### Eni i-Sint FULL SAPS



#### 0W-40

top synthetic



ACEA A3/B4  
API SN  
BMW LL-01<sup>(\*)</sup>  
MB-Approval 229.5<sup>(\*)</sup>  
Porsche A40<sup>(\*)</sup>  
VW 502 00 + 505 00<sup>(\*)</sup>  
Renault RN 0700, 0710

#### 5W-40

synthetic technology



ACEA A3/B4  
API SN  
BMW LL-01<sup>(\*)</sup>  
MB-Approval 229.3<sup>(\*)</sup>  
Porsche A40<sup>(\*)</sup>  
VW 502 00 + 505 00<sup>(\*)</sup>  
Renault RN 0700, 0710

#### 10W-40

synthetic technology



ACEA A3/B4  
API SN  
MB-Approval 229.3<sup>(\*)</sup>

<sup>(\*)</sup>Approved





# Eni i-Sint tech

Eni i-Sint tech is the line of new generation high performance lubricants, specifically developed to meet the individual needs of some of world's leading car manufacturers.

Formulated with very **high quality** base oils and highly innovative additives, **Eni i-Sint tech** lubricants are the technological answer to the **specific requirements** of **manufacturers**.

In order to **protect** the environment and people's health, the application of strict limits to car manufacturers regarding CO<sub>2</sub> emissions from exhaust is spreading worldwide. To comply with these restrictions, vehicle manufacturers have acted in different ways, **developing innovative** and **particular engine solutions** and/or focusing on the efficiency of the exhaust gas treatment systems. For these applications, it is essential to use lubricants with specific characteristics and formulations, in order to meet the particular performance specifications required by the vehicle.

Designed for specific engine solutions



## VOLKSWAGEN

**0W-30**  
top synthetic

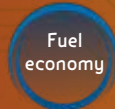


VW 503 00,  
506 00, 506 01<sup>(\*)</sup>

**VK 0W-20**  
top synthetic



VW 508 00, 509 00<sup>(\*)</sup>  
ACEA A1/B1  
Porsche C20



**VK 0W-30**  
top synthetic



VW 504 00 + 507 00<sup>(\*)</sup>  
ACEA C3

**VV 0W-20**  
synthetic technology



Volvo RBS0-2AE  
ACEA C5



## PSA

**P 0W-30**  
top synthetic



PSA B71 2312<sup>(\*)</sup>  
ACEA C2



**P 5W-30**  
synthetic technology



PSA B71 2290  
ACEA C2



## RENAULT

**R 5W-30**  
synthetic technology



Renault RN0720<sup>(\*)</sup>  
ACEA C4  
MB 229.51, 226.51

**G 5W-30**  
synthetic technology



GM LL-A-025  
LL-B-025  
API SL/CF

**M 5W-30**  
synthetic technology



JLR. 03.5005  
Ford 934-B  
ACEA C1, C2



## FORD

**ECO F 5W-20**  
synthetic technology



Ford WSS-M2C 948-B<sup>(\*)</sup>  
ACEA A1/B1  
API SN

**F 0W-30**  
top synthetic



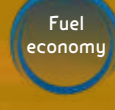
Ford WSS-M2C950-A  
ACEA C2  
JLR.03.5007



**F 5W-30**  
synthetic technology



Ford WSS-M2C913-D<sup>(\*)</sup>  
ACEA A5/B5,  
A1/B1  
API SL/CF  
Renault RN 0700  
JLR.03.5003



<sup>(\*)</sup>Approved





## Eni i-Sint BIO tech

Ultra fluid top **synthetic lubricant** for gasoline or hybrid cars. Thanks to the special additives and the use of **bio-esters**, it is a lubricant that offers high performance in terms of fuel economy compared to the traditional **SAE 0W-20** products.

It also meets the stringent requirements of **API SN PLUS RC**, which requires passing the **LSPI** test (Low Speed Pre Ignition).

BIO  
BASED



**Bio tech 0W-20**

top synthetic



API SN PLUS RC  
ILSAC GF-5



- Fuel economy
- API SN PLUS RC
- High performance
- For latest generation engines



## WHAT IS LSPI?

**LSPI** is an abnormal combustion event in which the fuel-air mixture ignites before the intended moment. **LSPI** is most common in modern small size engines with direct fuel injection (**DI**). In mild cases, this can cause engine noise, but when it is severe enough, **LSPI** can cause serious engine damage. The use of **Eni i-Sint Bio tech 0W-20** helps to avoid the occurrence of **LSPI**.







## Eni i-Sint professional

**Eni i-Sint professional** is the line specifically designed for professional operators, such as garage owners and auto parts dealers.

**Eni i-Sint professional** lubricants meet the performance specifications of the most important European and American Standards bodies, optimizing the price/quality ratio.

For special needs and technical or commercial support contact us through the area of interest available at the link:

[https://oilproducts.eni.com/en\\_GB/contacts](https://oilproducts.eni.com/en_GB/contacts)

## Eni i-Sint professional



### 5W-40

synthetic technology



API SL/CF  
MB 229.1  
VW 501 01, 505 00  
Suitable for use  
when ACEA A3/B4  
is required

### 10W-30

synthetic technology



API SN/CF

### 10W-40

synthetic technology



API SL/CF  
MB 229.1  
VW 501 01, 505 00  
Suitable for use  
when ACEA A3/B4  
is required

### 20W-50

synthetic technology



API SN/CF



## Eni i-Base

**Eni i-Base** is a line of mineral lubricants dedicated to traditional engines, characterized by great reliability and compliance with the main performance specifications. The products of the **Eni i-Base** line **guarantee protection** and **cleanliness** of **all mechanical components**, allowing full compliance with the manufacturer maintenance schedules.



## Eni i-Base professional

**Eni i-Base professional** is a line of mineral lubricants dedicated to older cars. By meeting the requirements of international **API** standards, **Eni i-Base** lubricants ensure protection of the engine against wear and deposits.



**15W-40**

mineral



API SM/CF  
MB 229.1  
VW 501 01, 505 00 quality  
Meets the performance  
requirements of ACEA A3/B4  
specification issue 2010

**20W-50**

mineral



API SM/CF  
MB 229.1  
VW 501 01, 505 00 quality  
Meets the performance  
requirements of ACEA A3/B4  
specification issue 2010



**10W-40**

mineral



API SL/CF

**15W-40**

mineral



API SJ/CF

**L 20W-50**

mineral



API SL/CF



## Not everybody knows that



### WHAT DOES SAPS MEAN?

**SAPS** stands for Sulphated Ash, Phosphorus and Sulfur.



### CAN A FULL SAPS LUBRICANT BE USED IF A MID SAPS LUBRICANT IS REQUIRED?

No, because a product with a high **SAPS** content can damage modern exhaust after-treatment systems. The reverse, on the other hand, does not generate critical issues, although a **Mid SAPS** product is specifically formulated for vehicles equipped with modern particulate filters.



### WHAT ARE MID SAPS LUBRICANTS FOR?

The entry into force of regulations on CO<sub>2</sub> emissions has forced car manufacturers to adopt very sophisticated exhaust gas post-treatment systems such as catalysts and particulate filters. The **particulate filters specifically** act as traps for all combustion residues, including the lubricant that leaks into the combustion chamber. The metallic elements of the lubricant, subjected to high temperatures, form solid compounds (the so-called “ashes”) that can cause filter clogging with a considerable decrease in the performance of the vehicle. Thanks to their particular composition, **Mid SAPS** lubricants preserve the functionality of modern exhaust gas post-treatment devices.



### HOW OFTEN SHOULD THE OIL BE CHANGED?

The oil drain interval depends on the lubricant, performance specifications and operating conditions. It is therefore good practice to consult the use and **maintenance vehicle manual** or follow the indications of the on-board system.



### WHAT IS SAE VISCOSITY GRADE?

**SAE** viscosity grade classifies lubricants based on their viscosity at low and high temperatures, providing useful information on the choice of **oil according** to the different climatic conditions and engine operating temperatures (cold starts and high speeds). In multigrade oils it is indicated by two parts separated by a dash:

- **left side**: refers to the cold viscosity (W = winter).
- **right side**: refers to the viscosity at high temperatures (100°C).



To find out the exact viscosity values at the various temperatures, refer to the **SAE J300** table.



### WHAT IS HTHS VISCOSITY?

Inside an engine in severe operating conditions (high temperatures, high revs and high loads), the oil present in the mechanical couplings between components is subjected to considerable shear stresses which give rise to a temporary loss of viscosity. The **HTHS** (High Temperature High Shear) viscosity value provides a measure of the lubricant viscosity under these operating conditions and therefore is indicative of the product's ability to maintain its performance even under stress. The most modern and sophisticated engines are designed to operate with ever more fluid oils (with low **HTHS**), which allow you to maximize efficiency and therefore achieve fuel savings while ensuring, thanks to the particular choice of formulation, protection and durability in time. It is very important to use low **HTHS** oils only if prescribed by the manufacturer.



### HOW CAN I CHOOSE THE RIGHT LUBRICANT FOR MY CAR?

Consult Lubefinder tool on the **OilProducts** website and available at the following link:  
<http://eni-ita.lubricantadvisor.com>



## Transmission oils



### Eni Rotra

Eni Rotra is the range of lubricants specifically designed to meet the most representative application needs for gearboxes and differentials used in both **automatic transmission systems**.

These products are able to satisfy a wide range of **performance specifications** issued by the main international bodies and required by the main passenger car manufacturers.



### WHY ARE TRANSMISSION LUBRICANTS DIFFERENT FROM ENGINE OILS?

Transmission lubricants have a different formulation from engine oils, in particular they contain additives with a strong antiwear action. This property is essential because the gears of transmission systems are subject to high speeds and very heavy loads, and therefore there is a relevant risk of damage to the metal surfaces in mutual contact.





## Eni Rotra MP 80W-90

API GL-5,  
MIL L 2105 D,  
MAN 342 type M1,  
MAN 342 type M2<sup>(\*)</sup>,  
ZF TE-ML 05A, 12E<sup>(\*)</sup>,  
ZF TE-ML 16B, 17B, 19B, 21A<sup>(\*)</sup>,  
ZF TE-ML 07A, 08

## Eni Rotra MP 85W-140

API GL-5,  
MIL L 2105 D,  
ZF TE-ML 05A, 12E<sup>(\*)</sup>,  
ZF TE-ML 16D, 21A<sup>(\*)</sup>,  
ZF TE-ML 07A, 08, 16D  
Volvo 1273.10

## Eni Rotra MP/DB 85W-90

API GL-5,  
MB 235.0,  
MIL-L-2105 D Level

## Eni Rotra MP/S 85W-90

API GL-5,  
ZF TE-ML 05C, 12C, 16E, 21C

## Eni Rotra GL 80W-90

API GL-5,  
MIL-L-2105 D Level

## Eni Rotra GL 85W-140

API GL-5,  
MIL-L-2105 D Level

## Eni Rotra HY DB Synth 75W-90

API GL-4,  
MB-Approval 235.11<sup>(\*)</sup>

## Eni Rotra MP 75W-90

API GL-4 + GL-5,  
API MT-1,  
SAE J2360,  
MAN 341 type Z2,  
MAN 342 type M3,  
Scania STO 1:0  
ZF TE-ML 02B, 05A, 12L, 12N<sup>(\*)</sup>,  
ZF TE-ML 16B, 17B, 19C, 21A<sup>(\*)</sup>

## Eni Rotra LSX 75W-90

MB-Approval 235.8<sup>(\*)</sup>,  
API GL-4 + GL-5,  
API MT-1,  
SAE J 2360 (ex MIL-PRF-2105E),  
MAN 341 type Z2<sup>(\*)</sup>,  
MAN 342 type S1<sup>(\*)</sup>,  
Scania STO 2:0 A FS,  
Volvo 97312,  
MACK GO-J,  
ZF TE-ML 02B, 05A, 12L, 12N,  
16F, 17B, 19C, 21A<sup>(\*)</sup>

## Eni Rotra Multigear 75W-80

API GL-4,  
ZF TE-ML 01L, 02L, 16K<sup>(\*)</sup>,  
ZF TE-ML 08, 13, 24A,  
MAN 341 type Z4<sup>(\*)</sup>,  
DAF, Volvo 97307<sup>(\*)</sup>,  
IVECO, Renault Note  
Technique B0032/2 Annex 3,  
Eaton PS-321

## Eni Rotra HY DB 80W

API GL-4,  
ZF TE-ML 2B, 17A  
MB-Approval 235.1<sup>(\*)</sup>

## Eni Rotra FE 75W-80

API GL-4,  
MB 235.1  
ZF TE-ML 06L, 08, 17A, 24A

## Eni Rotra FE 75W-90

API GL-4,  
VW 501 50 (G50) Level

## Eni Rotra HY 80W-90

API GL-4,  
ZF TE-ML 02A, 16A, 17A, 19A  
MIL-L-2105 Level

## Eni Rotra HY 90

API GL-4

## Eni Rotra HY 140

API GL-4

## Eni Rotra 80W-90

API GL-3

## Eni Rotra 85W-140

API GL-3

<sup>(\*)</sup>Approved



## NOT EVERYBODY KNOWS THAT

For manual transmission oils, the **API** levels are not progressive, as it is the case for engine oils (**S** and **C** series). An **API GL-5** level lubricant, in fact, is not suitable for use where the manufacturer prescribes a **GL-4** level, because its strong-acting additives could damage the materials of the synchronizers. Only some products have a balanced composition that satisfies both the **GL-4** and the **GL-5** levels, and this information is always reported on the product label. Also the **ZF** specifications, like **API's**, do not follow a progressive logic: the alpha-numeric codes of the specifications have each a well-defined meaning.

It is therefore absolutely necessary to refer to the vehicle use and maintenance manual to identify the correct lubricant to be used.



### ATF VI

GM DEXRON VI  
Ford MERCON LV  
JASO 1-A

### ATF III

GM DEXRON III G,  
Ford MERCON,  
MB 236.6,  
Allison C-4,  
MAN 339 type L-1,  
MAN 339 type V-1,  
MAN 339 type Z-1,  
ZF TE-ML 04D, 05L, 09, 14A, 21L,  
Volvo 97340,  
Voith H55.6335.xx

### ATF IID

Ford MERCON Level,  
GM DEXRON IID Level  
Allison C-4,  
Caterpillar TO-2,  
MAN 339 V-1<sup>(\*)</sup>  
MAN 339 Z-1 Level,  
MB 236.6,  
Voith H55.6335.xx  
ZF TE-ML 04D, 11A, 14A<sup>(\*)</sup>,  
ZF TE-ML 05L, 09, 17C

### ATF Multi

Allison TES-295,  
BMW LT 71141,  
JASO 1-A,  
AISIN JWS 3309,  
Toyota T-IV,  
NISSAN MATIC D, J, K,  
CHRYSLER ATF+3/+4,  
MB-Approval 236.9<sup>(\*)</sup>,  
GM DEXRON III H,  
Ford MERCON/MERCON V,  
ZF TE-ML 04D, 14B, 16L, 16R,  
20B, 25B<sup>(\*)</sup>,  
MAN 339 type V-1,  
MAN 339 type V2

### ATF

GM DEXRON IID  
Ford ESP-M2C166-H  
Ford ESP-M2C138-CJ  
MB 236.2

<sup>(\*)</sup>Approved

For technical data sheets consult  
[oilproducts.eni.com](http://oilproducts.eni.com)



## IS THE LUBRICANT THE SAME FOR MANUAL TRANSMISSION AND AUTOMATIC TRANSMISSION?

**Automatic transmissions** are very complex systems in which the lubricant must perform several distinct functions: operate the torque converter, protect the gear surfaces, provide the right friction properties in multi-disc and band clutches, hydraulically actuate gear changes. Since in automatic transmissions the lubricant is subject to operating temperatures which are usually higher than those of manual transmissions, it faces a higher **thermo-oxidative** stress for which only a specifically designed lubricant (identified as **ATF, Automatic Transmission Fluid**) can provide an effective response.

If necessary, to cover specific needs, other transmission lubricants are available:

Eni Rotra GL	80W-90	API GL-5, MIL-L-2105 D Level
Eni Rotra GL	85W-140	API GL-5, MIL-L-2105 D Level
Eni Rotra HY	90	API GL-4
Eni Rotra HY	140	API GL-4
Eni Rotra HY	80W-90	API GL-4, ZF TE-ML 02A, 16A, 17A, 19A MIL-L-2105 Level
Eni Rotra	80W-90	API GL-3
Eni Rotra	85W-140	API GL-3

For special needs and technical or commercial support contact us through the area of interest available at the link: [https://oilproducts.eni.com/en\\_GB/contacts](https://oilproducts.eni.com/en_GB/contacts)



# Coolants



**Eni Antifreeze** is the line of special ethylene glycol-based coolants, formulated without Nitrites, Amines and Phosphates (**N.A.P. free**) and recommended for an outstanding protection of the cooling circuits in modern vehicles.

Propylene glycol based fluids complete the range.  
For further information, consult: [oilproducts.eni.com](http://oilproducts.eni.com)



## WHAT IS THE COOLANT USED FOR?

The **coolant circulates** in the cooling systems and transfers heat from hot parts (engine) to cold area (radiator). To avoid damage to the circuit itself, the coolant must both resist freezing at low temperatures and boiling at temperatures over 100 °C. It must also protect metal parts from corrosion, prevent the formation of deposits and inhibit wear (cavitation) of the water pump.



## Eni Antifreeze

### Eni Antifreeze Spezial

Concentrated product.  
Formulated with organic corrosion inhibitors (OAT technology).

ASTM D 3306  
CUNA NC 956-16 (ed. '12)  
MAN 324 type SNF Level  
MB 325.3  
Ford WSS-M97B44-D  
VW TL 774D / F (G12/G12+)

### Eni Antifreeze Plus

Concentrated product.  
Formulated with organic acids and mineral inhibitors (hybrid technology).

MAN 324 NF Level  
VW TL 774C  
MB 325.0  
ASTM D 3306  
CUNA NC 956-16 (ed. '12)

### Eni Antifreeze Extra

Concentrated product.  
Formulated with inorganic inhibitors.

ASTM D 3306  
CUNA NC 956-16 (ed. '12)

### Eni Antifreeze Ready

Prediluted, ready-to-use product. Formulated with organic acids and mineral inhibitors (hybrid technology).

ASTM D 3306  
CUNA NC 956-16 (ed. '12)

### Eni Antifreeze Spezial 12++

Concentrated product.  
Formulated with organic acids and silicate inhibitors (Si-OAT).

AS 2108-2004  
SAE J1034  
O-Norm V 5123  
CUNA NC 956-16 (ed. '12)  
JIS K 2234:2006  
SANS 1251:2005  
China GB 29743-2013  
BS 6580:2010  
VW/Audi/Seat/Skoda/  
Lamborghini/Bentley/Bugatti  
TL 774-G  
Porsche from MY 1996  
MB-Approval 325.5<sup>(\*)</sup>  
MB-Approval 325.6<sup>(\*)</sup>  
MAN 324 type Si-OAT<sup>(\*)</sup>  
Cummins CES 14603  
MTU MTL 5048  
Liebherr Minimum LH-01-COL3A  
Deutz DQC CC-14  
IRIZAR, S. COOP from Sep. 2016  
ASTM D 3306  
ASTM D 4985

<sup>(\*)</sup>Approved

## Brake fluids



Eni Brake Fluid is the range of products specifically developed to ensure the best braking system performance in extreme conditions. Their special formulations prevent the dangerous phenomenon of "vapor lock" and guarantee the perfect efficiency of the braking circuit, thanks to its anti-corrosive properties against metals and chemical compatibility with rubber seals.



### WHAT IS THE VAPOR LOCK PHENOMENON?

It is the formation of vapor bubbles that can occur inside the brake fluid, when the braking circuit is subjected to continuous stresses which cause a noticeable rise in temperature.

Vapor lock is a very dangerous phenomenon because it can unexpectedly stop an effective braking action.

## Eni Brake Fluid



### DOT 4

#### HIGH BOILING POINT

- Dry boiling point: >260°C
- Wet boiling point: >160°C
- Viscosity @-40°C: <1500 mm²/s

#### SPECIFICATIONS

- FMVSS 116 DOT 4
- SAE J 1704
- ISO 4925/05 (CLASS 4)

### DOT 4 Plus

#### VERY HIGH BOILING POINT

- Dry boiling point: >290°C
- Wet boiling point: >200°C
- Viscosity @-40°C: 1000÷1700 mm²/s

#### SPECIFICATIONS

- FMVSS 116 DOT 4 +
- SAE J 1704
- ISO 4925/05 (CLASS 4)

### DOT 5.1

#### HIGH BOILING POINT AND LOW VISCOSITY

- Dry boiling point: >260°C
- Wet boiling point: >180°C
- Viscosity @-40°C: <900 mm²/s

#### SPECIFICATIONS

- FMVSS 116 DOT 5.1
- SAE J 1703
- ISO 4925/05 (CLASS 5-1)



## Greases



Eni offers a wide range of greases meeting all application needs of passenger cars.

		Thickener	Specifications
Lubrication of vehicle chassis	Eni Grease 15	Calcium	ISO 12924 L-XBBGA 1 DIN 51825 K 1G -20 ASTM D 4950 LA
	Eni Grease 16	Calcium	ISO 12924 L-XBBGA 2 DIN 51825 K 2G -20 ASTM D 4950 LA
Lubrication of joints, pins, plain and rolling bearings, open gears	Eni MP Grease	Lithium	ASTM D 4950 LB ASTM D 4950 GB ISO 12924 L-XBCHB 2 DIN 51825 KP 2K -20
Lubrication of wheel hub bearings	Eni Grease 33 FD	Bentonite	ASTM D 4950 GA DIN 51825 K 3N -10 ISO 12924 L-XADGA 3
Multi-purpose grease	Eni Grease 30	Lithium	ASTM D 4950 GB ISO 12924 L-XBCHA 2 DIN 51825 K 2K -20

For specific needs, and technical or commercial support, contact us through the area of interest available at the link: [https://oilproducts.eni.com/en\\_GB/contacts](https://oilproducts.eni.com/en_GB/contacts)

## Car care and cleaning



Meeting the driver's needs is our daily mission, that we carry out by offering a complete range of products and services, including car care.

**Eni i-Care** line offers high quality and easy-to-apply products, specifically formulated for interiors and exteriors car care and for special maintenance of the vehicle.



Discover the full product line on [oilproducts.eni.com](http://oilproducts.eni.com)

# i-care

## Eni at your service

### RESEARCH CENTRE

The **Eni Research Centre** in San Donato Milanese has state-of-the-art laboratories featuring advanced equipment for studying, developing and fully identifying the characteristics of raw materials for high performance lubricants. In line with the company's marketing strategies, the **Eni** research involves performing important technical activities in collaboration with important machinery manufacturers, regulatory authorities and several prestigious Italian universities.

The **Eni Research Centre** complies with the UNI EN ISO 9001 standard in relation to the activities of "Applied research, technical support and laboratory analyses in the energy sector: lubricants, additives, bitumens, special products for motor vehicles and for industrial use" and "Production on pilot systems of lubricants, propellants and fuels" (sector EA 34,35 - certificate no. 676).

### QUALITY

The long time established **Eni Refining & Marketing** Quality Management System obtained the updated UNI EN ISO 9001:2015 certification about commercial and industrial processes covering the whole lubricant and additives industrial cycle and including project design, process development, supplying activities, production operation, blending, packaging and client delivery.



### OUR COMMITMENT TO ENSURE CUSTOMER SATISFACTION

The **Eni Refining & Marketing** organization is able to support customers for any need regarding lubrication oils and to consolidate a strong relationship based on integrated technical support services.

#### Sales assistance

The **Eni** sales network, present on the territory, provides information on the range of lubricating oils and assists customers in all the product procurement phases.

#### Technical assistance

**Eni** technicians are available to help solving any operative issue and can provide their assistance to arrange lubrication guides, to follow the oil charge monitoring and to offer training courses regarding lubrication.

#### Laboratory assistance

The **Eni** laboratories give their full assistance to customers for the oil charge control by periodic monitoring in order to guarantee the best operating efficiency of lubricated machineries.





## Eni S.p.A. - Refining & Marketing

Viale Giorgio Ribotta, 51  
00144 Rome-Italy  
Tel. 0039 06 59881

Affix distributor's stamp here

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