



## PRODUCT DATA SHEET

### SYNPLUS LL-12 0W/30

#### PRODUCT DESCRIPTION

**Synplus LL-12 0W/30** is a full synthetic, mid SAPS, long drain super high performance engine oil which combines the latest development in oil formulation and additive technology to provide a lubricating oil with the highest level of protection, especially for vehicles with smaller engines at risk of LSPI and those with catalysed exhaust systems.

**Synplus LL-12 0W/30** is especially suited for use in modern BMW turbo diesel engines and those petrol engines without particulate filters requiring BMW LL-12 FE performance; as well many car and light van low friction diesel engines with catalytic converter exhaust systems designed to be capable of using a low viscosity oil with a high temperature/high shear rate (HTHS) viscosity of 2.9 mPa-s minimum.

Today's environmentally conscious market demands reduced emissions and increased fuel efficiency. This has led to the development of new engine designs resulting in demands for higher quality lubricants. In recent years car manufacturers have developed smaller, higher output engines to meet stricter fuel economy limits. Small engines help decrease vehicle weight and improve economy but these engines impact lubricants through:

- **Increased heat** - accelerates the rate of oil oxidation, nitration and deposit formation. This degrades the oil and encourages the creation of more acid and increases viscosity.
- **Increased pressure and speed** - makes it harder for the oil to maintain a lubricant film to prevent metal on metal contact. This accelerates valve train wear.
- **Emission Control** - most of today's petrol engines are fitted with catalytic converters which reduce emissions of CO, NOx and unburned carbon. Catalytic converters are susceptible to SAPS (Sulfated Ash, Phosphorous and Sulfur) that are present in engine oil detergents, antiwear additives and in base oils.

**Synplus LL-12 0W/30** is designed to overcome these challenges to the vehicle's lubricant system.

#### BENEFITS

- Longer drain intervals
- Better fuel economy
- Longer life for catalytic exhaust systems
- Enhanced LSPI protection
- Preserved performance of DPF and TWC filter systems

#### SPECIFICATIONS:

**Synplus LL-12 0W/30** meets or exceeds the following demanding performance requirements:

API:	SP, SN Plus
ACEA:	C2-16
BMW Longlife:	LL-12 FE
Mercedes Benz:	229.61

Always consult your vehicle owner's manual for the manufacturer's lubricant recommendations.





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### TYPICAL PROPERTIES

Property	Results
Appearance	Amber
Density (kg/Lt) @15°C	0.845
Viscosity (cSt) @100°C	9.4
@40°C	47.0
CCS @ -35°C (cP)	5282
Viscosity Index	188
HTHS (mPa.s)	3.0
TBN (mg KOH/g)	9.1
Sulphated Ash (% wt)	0.7
Phosphorus (% wt)	0.08
Flash Point (°C)	208

**Available in:** Bulk, 200 Litres and 20 Litres

"Hi-Tec Oil Traders Pty Ltd (Hi-Tec Oils) has endeavoured to ensure that all information, representations and specifications contained in this product data sheet are accurate at the time of publication. This general information should be used in conjunction with appropriate inquiries by users of the product including consultation with the vehicle or equipment manufacturers published information.

It is the responsibility of users of the product to use the product safely. Users should consult the safety data sheets for each product at [www.hi-tecoils.com.au](http://www.hi-tecoils.com.au). Hi-Tec Oils takes no responsibility for injury or damage if the product is used in an inappropriate or unsafe manner.

Our product warranty and product quality statement can be viewed at [www.hi-tecoils.com.au](http://www.hi-tecoils.com.au)"

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