KEY FEATURES
- Around 0.5% additional reduction of the fuel economy over the whole drain-interval compared with quality engine oils of the same SAE viscosity grade
- Prevents from deposits in engines and turbochargers
- Up to 23% better pumpability at low temperatures due to its innovative technology
- Up to 27% lower oil consumption
- Suitable for longest drain-intervals
- Improved ageing stability due its innovative technology and lower viscosity increase in a standardized engine test
- Best protection for modern exhaust gas after treatment systems
- Excellent wear protection even under high operation conditions
- Sandvik OE10W40-LA offers a wide application profile and is the rationalisation product for mixed fleets
- High neutralisation behaviour against sour burning residues in combination with latest Low-SAPS technology
- Fulfills all latest ACEA Ex specifications (ACEA E9/E7/E6/E4) in combination with API CJ-4 due to excellent properties

DESCRIPTION
Sandvik OE10W40-LA is a Premium Low-SAPS engine oil with the an innovative technology developed for commercial vehicles. It offers maximum fuel economy over the whole drain-interval due to outstanding oxidation and ageing stability. Sandvik OE10W40-LA guarantees optimum protection for modern diesel particulate filters and catalysts and provides improved durability. Due to minimum evaporation loss, the oil consumption and turbocharger deposits are significantly reduced. The new technology offers maximum performance over the entire temperature range and ensures good cold start properties even at very low temperatures. Sandvik OE10W40-LA exceeds conventional UHDP lubricants in versatility and performance.

APPLICATION
Sandvik OE10W40-LA is specially developed for commercial vehicles with modern exhaust gas treatment systems. Because of the extensive performance profile Sandvik OE10W40-LA is suitable as a rationalization product also for older vehicles. Sandvik OE10W40-LA completely fulfils all latest ACEA Ex Specifications in combination with API CJ-4. Sandvik OE10W40-LA is miscible and compatible with conventional branded engine oils. In order to fully utilize the product’s benefits, mixing with other engine oils should be avoided and a complete oil change is recommended when converting to Sandvik OE10W40-LA. For information on product safety and proper disposal please refer to the latest Material Safety Data Sheet.
SPECIFICATIONS

ACEA E9/E7/E6/E4
API CJ-4
JASO DH-2
CAT ECF-3

RECOMMENDATIONS

CUMMINS CES 20081
IVECO 18-1804 CLASSE TLS E9
IVECO 18-1809 CLASSE NG2
SCANIA LA
VOITH-RETARDER „B“

TYPICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density at 15 °C</td>
<td>DIN 51757</td>
<td>0.861 g/ml</td>
</tr>
<tr>
<td>Flash Point, CoC</td>
<td>DIN ISO 2592</td>
<td>238 °C</td>
</tr>
<tr>
<td>Pour Point</td>
<td>DIN ISO 3016</td>
<td>-33 °C</td>
</tr>
<tr>
<td>Kinematic Viscosity at 40°C</td>
<td>DIN 51562-1</td>
<td>97.4 mm²/s</td>
</tr>
<tr>
<td>Kinematic Viscosity at 100°C</td>
<td>DIN 51562-1</td>
<td>14.6 mm²/s</td>
</tr>
<tr>
<td>Viscosity Index</td>
<td>DIN ISO 2909</td>
<td>156</td>
</tr>
<tr>
<td>Viscosity CCS at -25°C</td>
<td>DIN 51377</td>
<td>6400 mPas</td>
</tr>
</tbody>
</table>

COLD-START PROPERTIES - FRESH AND USED OIL MRV

![Graph showing MRV at -30°C comparison](image)

- **Fresh oil**
- **Used oil**

**Sandvik OE10W-40-LA offers:**
- Excellent pouring properties at low temperatures (even with oil aging) and optimal oil supply of all engine parts
- Excellent shear stability
- Enhanced wear protection reserves
PISTON CLEANLINESS IN OM501LA

Sandvik OE10W40-LA shows excellent piston cleanliness in OM501 LA

OIL CONSUMPTION IN OM501 LA

Sandvik OE10W40-LA shows up to 44% less oil consumption compared with test limit

OM646 LA

Sandvik OE10W40-LA shows excellent wear protection in OM646 LA

It outperforms conventional full- SAPS oils

It shows over 50% additional wear reduction compared to ACEA and MB specification 228.51
TBN - NEUTRALIZATION POTENTIAL

**Sandvik OE10W40-LA:**
- Shows outstanding Mack T-12 results
- Shows higher TBN-retention than conventional high-ash oils
- Offers very high neutralization potential (even when fuel quality is poor)
- Protects from acidification and prevents corrosion

Full SAPS Market comparision #1
Full SAPS Market comparision #2
Sandvik OE10W40-LA shows outstanding performance in all four categories tested:
- Soot dispersion (Mack T-11)
- Wear control (Cummins ISM)
- Sludge control
- Piston cleanliness

Sandvik Mining reserves the right to make changes to the information on this data sheet without prior notification to users. Please contact a Sandvik representative for clarification on specifications and options.