



# eni I SIGMA TURBOSTAR

eni I SIGMA TURBOSTAR is blended with synthetic technology base stocks and is a long drain multi-grade oil for diesel engines operating under severe duty. It is recommended for use in heavy duty turbocharged diesel engines with or without intercooler, incorporated in industrial transport vehicles, construction equipments and buses. Ideal for use in all new generation engines of TATA Cummins, Caterpillar, Volvo etc. The oil can be used in Diesel engines and petrol engines of either turbocharged or naturally aspirated. The multi-grade span is adequate for most climatic conditions.

## CHARACTERISTICS (TYPICAL FIGURES)

<b>SAE Grade</b>		<b>15W-40</b>
Viscosity at 100 °C	mm <sup>2</sup> /s	14.18
Viscosity at 40 °C	mm <sup>2</sup> /s	105.06
Viscosity at - 20 °C	mPa.s	3425
Viscosity Index	-	148
Flash Point COC	°C	238
Pour Point	°C	- 24
Density at 29.5 °C	gms /cc	0.859

## PROPERTIES AND PERFORMANCE

- **The product exhibits marked resistance to deterioration**, especially from oxidation, which can be caused by pro-longed high temperature operation in the presence of air and other agents.
- **The use of the Synthetic technology base stock** and the large percentage of additives adopted permit very long life between oil drains. **The low volatility of the base stocks** ensure better control on fuel consumption
- **Demonstrates excellent control on oil thickening.** The dispersant properties of eni I SIGMA TURBOSTAR exceed the requirements posed by the API CH-4 specification. The product maintains solid products of combustion in suspension until the next oil change, thereby preventing the formation of dangerous deposits in the sump.
- **Excellent detergency keeping your engine clean.** eni I SIGMA TURBOSTAR keeps clean the hottest parts of the engine such as pistons and piston rings. These properties are ensured by a special combination of exclusive additives with synergic antioxidant and detergent properties. Deposit formation and combustion residues, is thus minimized.
- **The multi-grade characteristics** of this product make it perfectly suitable for the diesel engines operating under a wide range of climatic conditions. It retains a considerable viscosity (SAE 40) at high temperatures, while remaining sufficiently fluid at low temperatures to ensure easy starting.

## SPECIFICATIONS

eni I SIGMA TURBOSTAR meets the requirements of the following services and specifications:

- |                       |                     |
|-----------------------|---------------------|
| - API service CH-4/SJ | - MAN 271/3275      |
| - ACEA E5 / E7        | - VOLVO VDS 2       |
| - MB 228.3            | - Cummins CES 20076 |