



Superior Turbo Diesel Engine Oil

SAE 15W40 API: CI-4/SL

Ornate is a premium quality diesel engine oil formulated to meet the latest API : CI-4 standard. It is made from hydrocracked base oil with specially selected additives package. It is specially formulated to protect the engine under all operating conditions.

Ornate offers the maximum engine protection in the most severe servicing conditions (Transport, public work). It provides effective resistance against oxidation, corrosion and wear. In addition it maintains engine cleanliness.

APPLICATION

Ornate is recommended for use in heavily loaded diesel engines in commercial use and heavy duty diesel engine used in construction, mining and quarrying. It is equally applicable both for old and new engine.

BENEFITS

- Excellent engine cleanliness through soot handling technology.
- Exceeds the requirements of API "Energy conserving".
- Superior chemical and thermal stability.
- Trouble free operation between long drain service intervals.
- Exceptional low engine wear.

TYPICAL CHARACTERISTICS

| TEST DESCRIPTION | METHOD | TYPICAL RESULTS |
|-----------------------------|-------------|-----------------|
| SAE VISCOSITY GRADE | - | 15W40 |
| Appearance | ASTM D 4176 | B & C |
| Color | ASTM D 1500 | L 3.0 |
| Density at 30°C gm/ml | ASTM D 4052 | 0.818 |
| Kinematic Viscosity @ 40°C | ASTM D 445 | 115.1 |
| Kinematic Viscosity @ 100°C | ASTM D 445 | 15.3 |
| Viscosity Index | ASTM D 2270 | 140 |
| TBN | ASTM D 2896 | 11.4 |
| Flash Point °C | ASTM D 92 | 235 |
| Pour Point °C | ASTM D 97 | -20 |



Furnishing the information contained herein does not constitute a representation by Sigma Oil Industries Limited that any product of process is free from patent infringement claims of any third party nor does it constitute the granting of a license under any patent of Sigma Oil Industrues Limited or any third party. Sigma Oil Industries Limited assumes no liability for any infringment which might arise out of the use of the product. The information and suggestions to use and application presented herein represent the best information available to us and are belived to be reliable. They should not however be considered as controling suggestions and users urged to conduct confirmatory test to determine final suitability for their specific end usage. Sigma Oil Industries Limited warranties only that it's products meet the specification which is set for them and specially DISCLAIMS ALL OTHER WARRANTIES relating to the products and the application thereof EXPRESS or IMPLIED including but not limited to warranties of MERCHANTABILITY and FITNESS.



Data Sheet





• API CI-4/SL

- MB 229.1
- MB 228.1 /228.3
- ZF TE-ML07C
- ZF TE-ML04C
- Allison C-4
- VOLVO VDS-3
- Detroit Diesel DDC 93K214
- ACEA 2004 E7-04
- ACEA 1996 E2-05
- ACEA 1998 B3-02
- ACEA 1996 A2-03
- MTU Oil Category 1
- Caterpillar ECF 1
- MAN 271
- Cummins CES 20078
- Mack EO-M Plus
- Mack EO-N Premium plus 03



Furnishing the information contained herein does not constitute a representation by Sigma Oil Industries Limited that any product of process is free from patent infringement claims of any third party nor does it constitute the granting of a license under any patent of Sigma Oil Industrues Limited or any third party. Sigma Oil Industries Limited assumes no liability for any infringment which might arise out of the use of the product. The information and suggestions to use and application presented herein represent the best information available to us and are belived to be reliable. They should not however be considered as controling suggestions and users urged to conduct confirmatory test to determine final suitability for their specific end usage. Sigma Oil Industries Limited warranties only that it's products meet the specification which is set for them and specially DISCLAIMS ALL OTHER WARRANTIES relating to the products and the application thereof EXPRESS or IMPLIED including but not limited to warranties of MERCHANTABILITY and FITNESS.

