Heat Transfer Fluid

# REPSOL MULTIGRADO TERMICO

## Description

Mulitgrado Termico is a specially formulated industrial grade lubricant for use as a heat transfer oil. It is formulated using highly refined hydrocracked base oils with dedicated additive technology. This enhances the cleanliness throughout the system and minimises carbon deposits which tend to block the pipelines. Additionally, the superior base oil used, provides outstanding oxidation resistance and guarantees the right performance for a longer period. It is a top tier oil to be used in heat transfer systems where the temperature reaches up to 300 ºC.

## Properties

- High thermal stability and resistance to oxidation.
- Extended service life.
- Extremely good cleanliness capability.
- Easy temperature control.
- Good heat transfer coefficient.
- Low vapour pressure.
- Low tendency to form carbonaceous waste.

## Quality levels

- ISO 6743/12-QB
- DIN 51522-Q

## Technical specifications

| | UNIT | METHOD | VALUE |
|---|---|---|---|
| Density at 15 ºC | g/mL | ASTM D4052 | 0.875 |
| Viscosity at 40 ºC | cSt | ASTM D445 | 37 |
| Viscosity at 100 ºC | cSt | ASTM D445 | 5.8 |
| Viscosity index | - | ASTM D2270 | 102 |
| Pour point | ºC | ASTM D97 | -12 |
| Flash point, open cup | ºC | ASTM D92 | 220 |
| Initial distillation point | ºC | ASTM D1160 | 360 |
| TAN | mgKOH/g | ASTM D664 | 0.4 |
| TBN | mgKOH/g | ASTM D2896 | 1.1 |
| Thermal stability | ºC | - | 300 |

The above mentioned characteristics are typical values and should not be considered product specifications.

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| T (ºC) | Visc (cSt) | Density (g/cc) | Conductivity (W/mºC) | Cp (Kj/kgºC) |
|---|---|---|---|---|
| 20 | 99.16 | 0.871 | 0.105 | 1.874 |
| 40 | 35.87 | 0.858 | 0.103 | 1.954 |
| 60 | 16.71 | 0.846 | 0.101 | 2.034 |
| 80 | 9.26 | 0.833 | 0.099 | 2.114 |
| 100 | 5.80 | 0.820 | 0.097 | 2.194 |
| 120 | 3.97 | 0.807 | 0.095 | 2.274 |
| 140 | 2.90 | 0.794 | 0.093 | 2.354 |
| 160 | 2.22 | 0.781 | 0.091 | 2.434 |
| 180 | 1.78 | 0.768 | 0.089 | 2.514 |
| 200 | 1.46 | 0.755 | 0.087 | 2.594 |
| 210 | 1.33 | 0.748 | 0.086 | 2.634 |
| 220 | 1.23 | 0.741 | 0.085 | 2.674 |
| 230 | 1.13 | 0.735 | 0.084 | 2.714 |
| 240 | 1.06 | 0.728 | 0.083 | 2.754 |
| 250 | 0.99 | 0.722 | 0.082 | 2.794 |
| 260 | 0.91 | 0.715 | 0.081 | 2.834 |
| 270 | 0.85 | 0.709 | 0.080 | 2.874 |
| 280 | 0.79 | 0.702 | 0.079 | 2.914 |
| 290 | 0.74 | 0.695 | 0.078 | 2.954 |
| 300 | 0.70 | 0.689 | 0.077 | 2.994 |










