

# VULCAN OILS



HEAT TRANSFER



**TOTAL**

## Mineral Oil Based Heat Transfer Fluids.

### APPLICATIONS

Very hot circulating oil systems.

- **VULCAN OILS** are mineral oil based, fluids designed specifically for use in hot circulating oil systems where heat exchangers are often utilized. They are produced from high viscosity index paraffinic base stocks and specialized additives which extends service life.
- **VULCAN OILS** are recommended for open hot oil systems that operate up to 400°F or closed systems operating up to 600°F. Such systems are found in a variety of industries such as plastics, chemicals, food, paper, petro-chemicals, and road construction. Viscosity grades are chosen based on factors such as: turbulent flow, temperature, service type (intermittent or continuous), skin temperature, vapor pressure at operating temperature, ambient temperature on start-up, and flash point.

### SPECIFICATIONS

- ISO 6743/12 Category L
- DIN 51502 Class L

### ADVANTAGES

Long fluid life and high operating reliability.

- Excellent thermal stability.
- High flash point.
- High natural viscosity index.

| TYPICAL CHARACTERISTICS                                       | METHODS     | VULCAN OILS |          |          |
|---|-------------|-------------|----------|----------|
|   |             | 32          | 46       | 68       |
| ISO Viscosity Grade   |             | 32          | 46       | 68       |
| Color   | ASTM D 1500 | 2.5         | 2.5      | 2.5      |
| Viscosity @ 40°C, cSt   | ASTM D 445  | 31.9        | 47.0     | 69.0     |
| Viscosity @ 100°C, cSt  | ASTM D 445  | 5.49        | 6.96     | 8.76     |
| Viscosity Index   | ASTM D 2272 | 108         | 104      | 99       |
| Specific Gravity @ 60/60 °F                                   | ASTM D 1298 | 0.868       | 0.870    | 0.871    |
| Flash Point, COC, °F(°C)                                      | ASTM D 92   | 400(204)    | 415(213) | 460(238) |
| Pour Point, °F(°C)  | ASTM D 97   | -15(-26)    | -15(-26) | -15(-26) |
| Estimated Thermal Conductivity, 400°F(205°C), BTU/hr-sq ft-°F |             | 0.835       | 0.835    | 0.835    |
| Estimated Specific Heat, 400°F, BTU/lb-°F                     |             | 0.609       | 0.609    | 0.609    |
| Bulk Temp. Limit, °F(°C)                                      |             | 536(280)    | 536(280) | 554(290) |
| Skin Temp. Limit, °F(°C)                                      |             | 572(300)    | 572(300) | 608(320) |
| Calc. Vapor Pressure, 450°F, torr                             |             | 6           | 1.5      | 0.7      |
| Calc. Vapor Pressure, 550°F, torr                             |             | 35          | 15       | 9        |

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This lubricant must be applied as recommended and used for the application for which it was designed. TOTAL Specialties USA, Inc. will have no responsibility for any injury to persons or property resulting from misuse or misapplication of the lubricant. A safety data sheet conforming to the OSHA Hazard Communication Standard 29 CFR Section 1910.1200 can be downloaded at www.totalspecialties.com. Copyright 2016 All rights reserved.