



BOLDLY EXCEEDING EXPECTATIONS.

**DYNAMO
LUBRICANTS**

DYNA THERM

PREMIUM QUENCH OILS AND HEAT TRANSFER OILS

Dyna Therm heat transfer lubricating oils are premium quench oils and heat transfer oils with high-performance for use in closed, cold-oil sealed, indirect heating and cooling systems.

Dyna Therm heat transfer oils may help:

- High heat transfer rates and thereby potentially improves operating efficiency

- Increases service life without deposit formation or viscosity increase
- Easy starting of cold systems
- Keeps equipment free from sludge and coke deposits, helping result in lower maintenance

Dyna Therm Series Oils are available in ISO VG 22, 32

FEATURES & BENEFITS

Dyna Therm oils are specialty fluids that have gained a reputation for performance and reliability, even in severe applications. Modern refining techniques are a key factor in providing the excellent product features.

Dyna Therm Series offer the following benefits:

- High resistance to thermal cracking and decomposition. Resists deposit formation as determined by the Panel Coker test, resulting in cleaner operations over time Excellent GM Quenchometer (ASTM D3520) and consistent Quenchalyzer (ASTM D6200) performance.

- Excellent thermal properties. High heat transfer rates and improved operating efficiency and lower operating costs. Increases the cooling rate of quench oils and heat transfer oils.
- Good thermal and oxidative stability that provides long trouble-free service life and reduced downtime.
- Good low temperature fluidity for easy starting of cold systems.

APPLICATION

Dyna Therm heat transfer oils should not be mixed with other oils since this may impair the excellent thermal and oxidation stability resulting in a change in other properties, and complicate analyses aimed at determining useful oil life. If the oils are used above their recommended maximum temperatures, vapor lock may result unless the system is designed to operate at the higher temperature by pressurizing with an inert gas such as nitrogen. At higher temperatures, fluid life will be shortened because the rate of thermal degradation which increases markedly as temperatures rise above the recommended limit.

As with other mineral oils, Dyna Therm heat transfer oils should be used only in systems with forced circulation. Systems that depend on

convection for circulation of the heat transfer medium do not provide a rapid enough flow to prevent local overheating and rapid deterioration of the oil. Further, these oils are not recommended for use in open systems where hot oil is exposed directly to the air. If they spray or escape from leakage points, hot Dyna Therm oils may spontaneously ignite.

Dyna Therm series can be used in closed installations where the bulk oil temperature ranges are as outlined in the table below.

- Dyna Therm 22: Closed Systems (-15° C to 285° C), Open Systems (-15° C to 150° C)
- Dyna Therm 32: Closed Systems (-12° C to 315° C), Open Systems (-12° C to 180° C)

MANUFACTURED BY
D.K. LUBRICANTS (M) SDN BHD
SELANGOR D.E., MALAYSIA

INTERNATIONALLY MARKETING BY
KISMAT PETROLEUM TRADING PTE LTD,
SINGAPORE



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SPECIFICATION OF DYNA THERM

PARAMETERS	ISO VG 22	ISO VG 32
Viscosity, ASTM D 445		
cSt @ 40 °C	20.2	30.4
cSt @ 100 °C	4.2	5.4
Viscosity Index, ASTM D 2270	111	113
Pour Point, °C, ASTM D 97	-15	-12
Flash Point, °C, ASTM D 92	194	230
Specific Gravity @15 °C kg/l, ASTM D 4052	0.835	0.857

These characteristics are typical of current production.

Whilst future production will conform to Dynamo specification, variations in these characteristics may occur.

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