HYTERMOL X1

Synthetic blend Heat Transfer Oil

VORTA HYTERMOL X1 is a high-quality, thermally stable. It is synthetic blend oil developed for use in both open and closed liquid-phase heat transfer systems.

HYTERMOL X1 is formulated with high-quality, *hydroprocessed paraffinic base oils* ***group2*** and mix with *alkyl benzene base stock* , that have good thermal stability and low sludge-forming tendency.
It is fortified with select additives that provide enhanced oxidation resistance for long service life, and detergency to help keep the system clean for maximum heat transfer efficiency.

Applications

HYTERMOL X1 is recommended for use in closed liquid-phase heat transfer systems equipped with expansion tanks and pressure relief valves, where the maximum bulk oil temperature does not exceed 680°F (360°C). Preventive measures should be taken to minimize oil oxidation by eliminating air from the system prior to bringing the oil up to operating temperature.

The use of an inert gas, such as nitrogen, under positive pressure in the expansion tank is recommended at all times during operation.Under no circumstances should the hot oil come into contact with air.

VORTA HYTERMOL X1 also is recommended for use in open liquidphase heat transfer systems equipped with cold-oil sealed expansion tanks, where the maximum bulk oil temperature does not exceed 200°C.

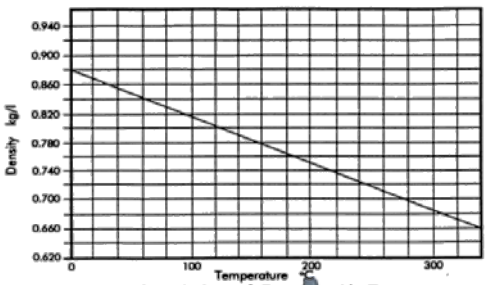
VORTA HYTERMOL X1 *not recommended for use in vapor-phase* heat transfer systems.
Follow the equipment manufacturer's recommendations on oil change intervals, *and for recommended practices when switching over from another brand of heat transfer oil.*
Some common HYTERMOL X1 applications for Heat Transfer Oil include:

- Direct and indirect-fired hot oil heaters in asphalt plants
- Hot corrugation and gluing
- Dehydration
- Molding and extrusion equipment
- Plastic and wax coating equipment
- Organic synthesis hot oil systems

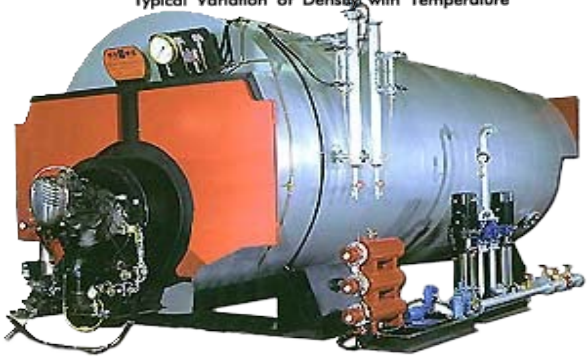
Features/Benefits

- *Excellent resistance to thermal breakdown at high temperatures*
- *Excellent performance in both open and closed heat transfer systems*
- *Long service life*
- *Excellent deposit control*
- *Low odor*

Specific Gravity @ 60°F		0.886
Color, ASTM D1500		L 1.0
Flash Point (COC), °C (°F)	248	478.4
Autoignition Temperature, ASTM E659, °C (°F)	395	743
Pour Point, °C (°F)	-35	95
Viscosity,		
cSt @ 40°C		31
cSt @ 100°C		5.4
SUS @ 100°F		160
cSt @ 210°F		44.4
Viscosity Index		122
Carbon Residue, ASTM D524, wt %	max	0.01
Specific Heat, Btu/lb-°F)		
@ 0°F/(-18°C)		0.418
@ 200°F/(93°C)		0.515
@ 400°F/(204°C)		0.612
@ 550°F/(288°C)		0.685
Vapor Pressure @ 260°C (500°F), mm Hg		8



Typical Variation of Density with Temperature



The above figures are typical of those obtained with normal production tolerances and do not constitute a specification.