

## OVERVIEW

**Duratherm HTO** heat transfer oil is engineered for precise and efficient temperature control up to 600°F (315°C) and is a budget solution where heat transfer applications require an environmentally friendly, low cost fluid to meet today's fast paced production demands.

## APPLICATION

Engineered for many years of service, it's ideal for a wide range of closed to atmosphere (inertly sealed) applications including paint, rubber, paper mill calendars, board plants, roofing, textiles, laundry, refineries and asphalt production.

## THE DIFFERENCE

**Duratherm HTO's** use of highly refined base stocks ensures excellent thermal stability. Its low volatility also minimizes vapor pressure at elevated temperatures and unlike most other fluids in its class, **Duratherm HTO** contains antioxidants\*, metal deactivators and corrosion inhibitors to further enhance the fluid's longevity and help protect your system.

*\*For critical applications where high levels of oxidation are prevalent please consider Duratherm 600.*

## ENVIRONMENTAL

**Duratherm HTO** is environmentally friendly, non-toxic, non-hazardous and non-reportable. **Duratherm HTO** poses no ill effect to worker safety.

## DISPOSAL

After its long service life it can easily be disposed of with other waste oils. Duratherm supports recycling and encourages oil reclamation programs where possible.

## SYSTEM CLEANING

In our effort to truly service the heat transfer industry, we have developed four unique and specific heat transfer system cleaners. Ranging from preventative maintenance system cleaners to emergency downtime system revivers, we have a cleaner that fits your needs and schedule.

## DURATHERM HTO PROPERTIES

<b>Appearance:</b> clear and bright liquid		
<b>Maximum Bulk/Use Temp.*</b>	600°F	315°C
<b>Flash Point</b> ASTM D92	405°F	207°C
<b>Fire Point</b> ASTM D92	434°F	223°C
<b>Autoignition</b> ASTM E-659-78	680°F	360°C
<b>Viscosity</b> ASTM D445		
cSt at 104°F / 40°C	40	
cSt at 212°F / 100°C	6.5	
cSt at 600°F / 316°C	0.7	
<b>Pour Point</b> ASTM D97	5°F	-15°C
<b>Density</b> ASTM D1298	<b>lb/ft<sup>3</sup></b>	<b>g/ml</b>
at 100°F / 38°C	52.5	0.842
at 500°F / 260°C	43.0	0.688
at 600°F / 316°C	40.7	0.652
<b>Average Molecular Weight</b>	371	
<b>Carbon Residue</b> ASTM D189	0.005	% Mass
<b>Sulphur Content</b> X-RAY	<.001	weight %
<b>CU Strip Corrosion</b> ASTM D130	1a	
<b>Thermal Expansion Coefficient</b>	0.0564 %/°F	0.1011 %/°C
<b>Thermal Conductivity</b>	<b>BTU/hr F ft</b>	<b>W/m.K</b>
at 100°F / 38°C	0.081	0.141
at 500°F / 260°C	0.074	0.130
at 600°F / 316°C	0.073	0.127
<b>Heat Capacity</b>	<b>BTU/lb F</b>	<b>kJ/kg K</b>
at 100°F / 38°C	0.465	1.907
at 500°F / 260°C	0.634	2.653
at 600°F / 316°C	0.673	2.819
<b>Vapor Pressure</b> ASTM D2879	<b>psia</b>	<b>kPa</b>
at 100°F / 38°C	0.00	0.00
at 500°F / 260°C	0.47	2.78
at 600°F / 316°C	2.30	11.89
<b>Distillation Range</b> ASTM D2887	10%	702°F (372°C)
	90%	852°F (455°C)
<b>*Maximum Film Temp.</b>	630°F	332°C

The values quoted are typical of normal production. They do not constitute a specification.