

## OVERVIEW

**Duratherm 600 is an oxidative and thermally stable heat transfer fluid (thermal oil) rated to 600°F (315°C). Long lasting and environmentally friendly it offers precise temperature control at an economical cost.**

## APPLICATION

**Duratherm 600** is engineered for precise and efficient temperature control up to 600°F (315°C) With a high flashpoint, low vapor pressure and an initial boiling point above the maximum operating temperature **Duratherm 600** offers safety and performance for many diverse applications.

## THE DIFFERENCE

**Duratherm 600** thermal oil contains the industry's most effective and resilient blend of additives to ensure long-lasting, trouble-free service. Our exclusive system includes a proprietary, dual stage anti-oxidant and a special blend of metal deactivators, extenders, and other agents that prolong fluid life and help keep systems clean. That also means longer life for parts like pumps and rotary seals.

## LASTS LONGER

Oxidation can cripple your system. Left unchecked, it will ultimately cause catastrophic failure and costly downtime. That's why **Duratherm 600** thermal oil offers unsurpassed levels of protection against oxidation, and a service life that other fluids simply can't match.

## RUNS CLEANER

**Duratherm 600** thermal oil delivers superior resistance to sludging, a problem plaguing most other fluids. That makes it the best defense against extreme oxidation found in many of today's demanding manufacturing environments, including plastics processing, molding, casting, asphalt, paint, chemical and a wide variety of other applications. In fact, our exclusive additive technology makes **Duratherm 600** the perfect solution for all applications, large or small requiring precise temperature control up to 600° F (315°C).

## ENVIRONMENTAL

**Duratherm 600** thermal oil is environmentally friendly, non-toxic, non-hazardous and non-reportable. It poses no ill effect to worker safety and does not require special handling. After its long service life, **Duratherm 600** thermal oil can easily be disposed of with other waste oils.

## DURATHERM 600 PROPERTIES

<b>Appearance:</b> colorless, clear and bright liquid		
<b>Maximum Bulk/Use Temp.*</b>	600°F	315°C
<b>Flash Point ASTM D92</b>	435°F	224°C
<b>Fire Point ASTM D92</b>	464°F	240°C
<b>Autoignition ASTM E-659-78</b>	680°F	360°C
<b>Viscosity ASTM D445</b>		
cSt at 104°F / 40°C	34.3	
cSt at 212°F / 100°C	5.6	
cSt at 600°F / 316°C	0.7	
<b>Pour Point ASTM D97</b>	14°F	-10°C
<b>Density ASTM D1298</b>	<b>lb/ft<sup>3</sup></b>	<b>g/ml</b>
at 100°F / 38°C	52.7	0.844
at 500°F / 260°C	43.3	0.693
at 600°F / 316°C	41.0	0.656
<b>Average Molecular Weight</b>	372	
<b>Carbon Residue ASTM D189</b>	0.005	% Mass
<b>Sulphur Content X-RAY</b>	<.001	weight %
<b>CU Strip Corrosion ASTM D130</b>	1a	
<b>Thermal Expansion Coefficient</b>	0.0564 %/°F	0.1011 %/°C
<b>Thermal Conductivity</b>	<b>BTU/hr F ft</b>	<b>BTU/hr F ft</b>
at 100°F / 38°C	0.082	0.142
at 500°F / 260°C	0.075	0.130
at 600°F / 316°C	0.074	0.128
<b>Heat Capacity</b>	<b>BTU/lb F</b>	<b>kJ/kg K</b>
at 100°F / 38°C	0.470	1.967
at 500°F / 260°C	0.645	2.700
at 600°F / 316°C	0.680	2.870
<b>Vapor Pressure ASTM D2879</b>	<b>psi</b>	<b>kPa</b>
at 100°F / 38°C	0.00	0.00
at 500°F / 260°C	0.39	2.68
at 600°F / 316°C	1.62	11.19
<b>Distillation Range ASTM D2887</b>	10%	715°F (379°C)
	90%	886°F (474°C)
<b>*Maximum Film Temp.</b>	650°F	343°C

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