DURATHERM
EXTENDED LIFE FLUIDS

Duratherm 600

Duratherm has been a leader in the heat transfer industry for more than 25 years, providing comprehensive technical support services and delivering a full range of fluids that achieve optimal performance in every application.

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 contains the industries 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 down-time. That's why Duratherm 600 offers unsurpassed levels of protection against oxidation, and a service life that other fluids simply can't match.

Runs Cleaner

Duratherm 600 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 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 can easily be disposed of with other waste oils.

System Cleaning

If your existing fluid has let you down and left you with a system full of sludge or carbon, we've developed a full line of System Cleaners to get your system back to like-new condition. Contact us for complete details.

Synopsis

Duratherm 600 is an oxidative and thermally stable, high performance, long lasting, environmentally friendly heat transfer fluid. Offering precise temperature control and long life at an economical cost.

Properties	Test Method	Duratherm 600
Appearance		Crystal Clear
Maximum use Temperature		315°C 600°F
Density at 38°C, g/ml (lb/ft)	ASTM D1298	0.850 (53.1)
at 260°C, g/ml (lb/ft)		0.701 (43.8)
at 316° C, g/ml (lb/ft)		0.662 (41.3)
Flash Point, °C (°F)	ASTM D92	224°C (435°F)
Fire Point, °C (°F)	ASTM D92	240°C (464°F)
Autoignition Temperature, °C (°F)	ASTM E-659-78	360°C (680°F)
Carbon Residue, % Mass	ASTM D189A	0.005
Sulphur Content, weight %	X-RAY	<.001
Cu Strip Corrosion	ASTM D130	1a
Average Molecular Weight		372
Viscosity, cSt at 40 C (104 F)	ASTM D445	32.1
cSt at 100 C (212 F)		05.2
cSt at 316 C (600 F)		0.71
Pour Point, °C (°F)	ASTM D97	-10°C (14°F)
Coefficient of Thermal Expansion, %/ °C(%/ °F)		0.1016 (0.0564)
Thermal Conductivity, W/m K (BTU/hr .°F-ft)		
at 38°C (100 F)		0.140 (0.081)
at 260°C (500 F)		0.130 (0.075)
at 316°C (600 F)		0.127 (0.073)
Heat Capacity, kJ/kg K (BTU/lb. °F)		
at 38°C (100°F)		1.96 (0.47)
at 260°C (500°F)		2.69 (0.64)
at 316°C (600°F)		2.88 (0.69)
Vapor Pressure, kPa (psi)	ASTM D2879	
at 15°C (60°F)		0.00 (0.00)
at 38°C (100°F)		0.67 (0.097)
at 260°C (500°F)		3.77 (0.55)
at 316°C (600°F)		15.30 (2.22)
Distillation Range, °C (°F)	ASTM D2887	
10%		379°C (715°F)
90%		474°C (886°F)

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

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www.heat-transfer-fluid.com
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