

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 HF satisfies the needs of industry and insurance officials who recommend operating systems at temperatures below the heat transfer fluid's flashpoint.

Engineered specifically for this purpose, its flashpoint is one of the industry's highest at 530° F (276°C).

The Difference

Not only does Duratherm HF have one of the highest flash points available it also 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 downtime. That's why Duratherm HF offers unsurpassed levels of protection against oxidation, and a service life that other fluids simply can't match.

Runs Cleaner

Duratherm HF 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.

Environmental

Duratherm HF 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 HF 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 HF is a high performance, long lasting, environmentally friendly heat transfer fluid. Offering precise temperature control with an industry leading flashpoint of 530°F (276°C).

Please consult your equipment manufacturer or Duratherm to ensure Duratherm HF is suitable for your system.

Duratherm HF Properties

Appearance: colorless, clear and bright liquid		
Maximum bulk/use Temp.	640°F	338°C
Flash Point ASTM D92	530°F	276°C
Fire Point ASTM D92	582°F	305°C
Autoignition ASTM E-659-78	830°F	443°C
Viscosity ASTM D445		
cSt at 104°F / 40°C	103	
cSt at 212°F / 100°C	10.45	
cSt at 600°F / 316°C	0.81	
Pour Point ASTM D97	15°F	-9°C
Density ASTM D1298		
at 100°F / 38°C	53.85	0.862
at 500°F / 260°C	44.1	0.706
at 600°F / 316°C	41.9	0.671
Average Molecular Weight	399	
Carbon Residue ASTM D189	0.005	% Mass
Sulphur Content X-RAY	<.001	weight %
CU Strip Corrosion ASTM D130	1a	
Thermal Expansion Coefficient	0.0562 %/°F	0.1011 %/°C
Thermal Conductivity		
	BTU/hr F ft	W/m K
at 100°F / 38°C	0.082	0.141
at 500°F / 260°C	0.075	0.129
at 600°F / 316°C	0.074	0.128
Heat Capacity		
	BTU/lb F	kJ/kg K
at 100°F / 38°C	0.445	1.863
at 500°F / 260°C	0.618	2.587
at 600°F / 316°C	0.663	2.775
Vapor Pressure ASTM D2879		
	psi	kPa
at 100°F / 38°C	0.00	0.00
at 500°F / 260°C	0.24	1.65
at 600°F / 316°C	1.84	12.69
Distillation Range ASTM D2887		
	10%	851°F (455°C)
	90%	1063°F (572°C)

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