

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.

Applications

Polyalkylene glycol based fluids such as UCON 500® are a widely used form of heat transfer fluid that until now offered only average performance, short fluid life and have not been compatible with most other types of heat transfer fluids.

Duratherm G's exclusive additive system now allows for its successful use in high demand applications like those found in the plastic industry, die casting and even performs and lasts exceptionally well in open baths.

Compatibility

Duratherm G not only outperforms most other fluids it also contains a unique and proprietary additive that makes it compatible with the more commonly used petroleum based fluids. This allows for a worry free transition across different fluid chemistries and eliminates any need for special procedures.

We've also reduced odors and improved fluid clarity when compared to other glycol fluids.

Longevity

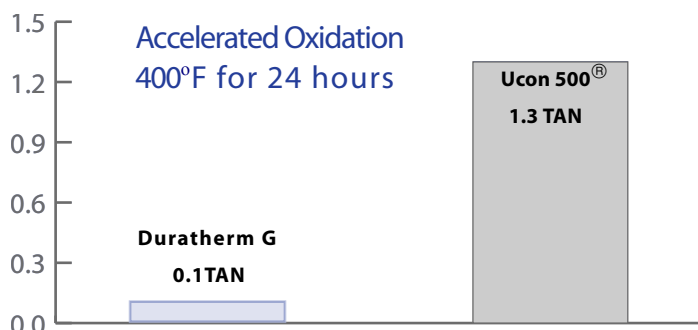
Duratherm G contains our proprietary blend of anti-oxidants, corrosion inhibitors, metal deactivators, seal and gasket extenders etc. to ensure a long trouble free service life in even the most demanding, extreme oxidation applications.

Synopsis

Duratherm G is an oxidative and thermally stable heat transfluid offering precise temperature control in applications requiring compatibility with Glycol based fluids.

Properties	Test Method	Duratherm G
Maximum Use Temp °C (°F)		
Bulk Temp		260 (500)
Film Temp		288 (550)
Pour Point °C (°F)		-40 (-40)
Flash Point °C (°F)	ASTM D92	267 (511)
Fire Point °C (°F)	ASTM D92	284 (543)
Auto Ignition °C (°F)	ASTM D2155	373 (704)
Specific Gravity@60°F	ASTM D792	0.963
Color		<0.5
Kinematic Viscosity (cSt)		
100 °F (38 °C)		52.68
212 °F (100 °C)		8.88
500 °F (260 °C)		1.57
Coefficient of Thermal Expansion %/°C (%/°F)		0.080 (0.0377)
Density gm/cm ³ (lb/ft ³)		
100 °F (38 °C)		0.915 (57.6)
400 °F (204 °C)		0.816 (51.1)
500 °F (260 °C)		0.789 (49.1)
Thermal Conductivity W/m K (BTU/hr .°F- ft)		
100 °F (38 °C)		0.164 (.095)
400 °F (204 °C)		0.138 (.080)
500 °F (260 °C)		0.131 (.076)
Heat Capacity kJ/kg.K (BTU/lb. °F)		
100 °F (38 °C)		1.97 (0.47)
400 °F (204 °C)		2.29 (0.55)
500 °F (260 °C)		2.34 (0.56)
Vapor Pressure kPa (psi)		
100 °F (38 °C)		0.68 (0.99)
400 °F (204 °C)		3.79 (0.57)
500 °F (260 °C)		15.31 (2.23)
Boiling Point °C (°F)	10%	367 (694)
	90%	513 (957)

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



The above graph shows how Duratherm G outperforms Ucon 500® when heated and stressed for 24 hours at 400° F . Total Acid Number (TAN) is directly related to a fluids ability to resist oxidation and sludging.

System Cleaning

U-Clean is an industry first and another Duratherm innovation – by combining Duratherm G with our proprietary cleaning system U-Clean effectively cleans and dissolves varnish and sludge from heat transfer systems.

Perfect as a preventative maintenance tool, minimizing downtime and optimizing production rates. All while still running production!