StaticTherm G-WS

Product information and selection

StaticTherm G-WS is a water soluble, polyalkylene glycol-based fluid specially formulated for high oxidation, open style systems. Rated for use to 260C (500F), StaticTherm G-WS is a water soluble thermal fluid with a strong resistance to sludge and varnishing.

APPLICATION StaticTherm G-WS is engineered to withstand extreme oxidation found in annealing tanks, quenching and forming baths. Ideal for lost core molding and plastic forming or any application where parts are directly exposed to the thermal fluid - it's water solubility means cleaning parts is quick and easy and in most cases does not require more than a water rinse.

TEMPERATURE RATINGS

Maximum Bulk/Use Temp.	260°C	500°F
Maximum Film Temp.	288°C	550°F
Pour Point ASTM D97	-48°C	-54°F

SAFETY DATA

Flash Point ASTM D92	275°C	527°F
Fire Point ASTM D92	293°C	559°F
Autoignition ASTM E-659-78	400°C	752°F

COMPATIBILITY StaticTherm G-WS is compatible with most common construction materials such as carbon steel, copper and aluminum. It is compatible with forced flow gas or electrically heated system as well as static baths and can tolerate higher watt densities of electric immersion heaters.

THERMAL PROPERTIES

Thermal Expansion Coefficient	0.09 %/°C	0.05 %/°F
Thermal Conductivity	W/m K	BTU/hr F ft
38°C / 100°F	0.164	0.095
121°C / 250°F	0.152	0.088
260°C / 500°F	0.130	0.075
Heat Capacity	kJ/kg K	BTU/lb F
38°C / 100°F	1.958	0.467
121°C / 250°F	2.141	0.512
260°C / 500°F	2.448	0.585

StaticTherm G-WS being a unique water soluble formulation however, means that it is not miscible with more common hydrocarbon or chemical based thermal fluids.

Appearance: light amber, clear liquid	
Viscosity ASTM D445	
cSt at 20°C / 68°F	124.40

Appearance: light amber, clear liquid		
cSt at 40°C / 104°F	51.91	
cSt at 260°C / 500°F	0.87	
Density ASTM D1298	kg/m3	lb/ft3
38°C /100°F	1020.73	63.73
121°C / 250°F	952.92	59.48
Vapor Pressure ASTM D2879	kPa	psi
38°C / 100°F	0.04	0.01
121°C / 250°F	0.51	0.09
260°C / 500°F	7.16	1.11

LASTS LONGER StaticTherm G-WS is formulated with StaticTherm's proprietary additive system giving it an incredible resistance to oxidation and thermal stability. StaticTherm G-WS resists sludge and varnish formation as well as coking.

SAFE StaticTherm G-WS is one of the few fluids with a flashpoint above it's maximum rated operating temperature.