

Hysyn Heat Transfer Fluid

Product Description

Chemikel Hysyn Heat Transfer Fluid is a premium synthetic heat transfer fluid engineered specifically for closed-loop hot oil systems used in aluminum, magnesium, and zinc die casting operations. It is designed to deliver exceptional thermal stability and consistent heat transfer performance in high-temperature environments where precise die temperature control is critical to casting quality and productivity.

Formulated with high viscosity index (VI) base oils and advanced oxidation inhibitors, Hysyn maintains excellent thermal integrity at operating temperatures up to and exceeding 600°F (315°C). Its superior resistance to oxidation, thermal cracking, and deposit formation ensures reliable system performance while protecting heat transfer units, dies, and system components from fouling and degradation.

Chemikel Hysyn Heat Transfer Fluid supports consistent die temperatures, improved casting quality, and extended equipment life—helping die casters reduce downtime, improve cycle consistency, and lower overall operating costs.

Benefits

- Exceptional thermal stability at high operating temperatures
- Maintains performance in demanding die casting hot oil units operating up to 600°F+
- Improved heat transfer efficiency
- Ensures consistent die temperatures for optimal metal flow, reduced scrap rates, and improved casting quality
- Extended fluid service life
- Advanced oxidation resistance reduces fluid breakdown and extends change-out intervals
- Minimized sludge, coke, and varnish formation
- Keeps hot oil units, lines, and heat exchangers clean, improving system efficiency and reliability
- Enhanced protection of system components
- Protects pumps, seals, heaters, and piping from corrosion and thermal degradation
- Improved operational safety
- High flash point and thermal stability reduce vapor formation and fire risk
- Reduced maintenance and downtime
- Cleaner systems require less maintenance, improving uptime and production efficiency

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Typical Properties

	Test Method	Test Temp.	
ISO Grade			68
Specific Gravity			
		15.6°C	0.878
		260°C	0.722
		316°C	0.686
Color	D-1500		2.0
Flash Point	D-92		496°F
Fire Point	D-92		510°F
Pour Point	D-5950		5°F (-15°C)
Viscosity	D-445		
		40°C	72.5
		100°C	9.65
		204°C	2.0
		260°C	1.27
		316°C	0.91
Copper Corrosion	D-130		1B
Thermal Expansion Coefficient		vol %/°F	0.03 to 0.05
		vol%/°C	0.06 to 0.10
Specific Heat, BTU/lb-°F			
		100°F	0.47
		400°F	0.607
		500°F	0.655
		600°F	0.703
Thermal Conductivity, BTU/hr-ft-°F			
		100°F	0.91
		400°F	0.83
		500°F	0.80
		600°F	0.73