

TECHNICAL DATA SHEET

KOOLTECH IMC 50



DESCRIPTION

KOOLTECH IMC-50 is a fully synthetic, electrical insulating heat transfer fluid specifically formulated for direct immersion cooling of lithium-ion battery cells, high-density electronic assemblies and in two phase immersion and electronic cooling applications.

KOOLTECH IMC 50 exhibits excellent oxidation stability, high thermal stability, superior insulating heat transfer fluid preventing electrical shorts while dissipating heat through direct submersion, resulting in higher power density than air cooling. Its low viscosity nature allows for more efficient circulation at all times. By using KOOLTECH IMC 50 that absorb heat generated directly, immersion cooling eliminates the need for fans and conventional air conditioning, allowing for higher, more consistent performance for high-density components.

KOOLTECH IMC 50 is ideal for high-performance computing (HPC), artificial intelligence (AI) and edge computing, allowing for significantly higher rack power densities compared to conventional cooling such as computer room air conditioning, or CRAC.

KOOLTECH IMC 50 is compatible with most plastics such as nylon, HDPE, PTFE, polyurethane, polypropylene or polycarbonate. It is also compatible with most metals.

Exposures to stainless steel, copper, brass, and aluminium.

It is colourless, odourless, environmentally compatible, and formulated to prevent corrosion or degradation of battery components and associated materials.

SUMMARY OF BENEFITS

- Excellent electrical Insulation
- Resistant to degradation from small amounts of moisture or electrolyte leakage.
- Superior Thermal Stability
- High evaporation point and excellent high-temperature resistance ensure minimal volatility and no air contamination.
- High heat dissipation efficiency
- Exceptional thermal conductivity enables rapid heat transfer and improved system performance.
- Outstanding material compatibility, non-corrosive and chemically compatible with electronic components
- Non-corrosive to electronic components, rubber, plastics, and metal parts.
- Free from harmful substances, safe to handle, and easy to manage operationally.

KOOLTECH IMC 50	TEST METHOD	UNIT	RESULTS
APPEARANCE	Visual	-	Clear liquid
VISCOSITY @40°C	ASTM D445	cSt	4.25
WATER CONTENT	-	ppm	88
TAN	ASTM D664	mgKOH/g	0.01
FLASH POINT	ASTM D92	°C	146
POUR POINT	ASTM D97	°C	-55
RELATIVE PERMITTIVITY @40°C	-	-	2.49
DIELECTRIC DISSIPATION FACTOR @40°C	-	-	0.0012
DC RESISTIVITY @40°C	-	Ohm'cm	1.36*10 ¹⁴

Typical characteristics are only a guide to industry and are not necessarily manufacturing or marketing specifications and do not constitute any legal liability

STORAGE INSTRUCTIONS & HEALTH, SAFETY AND ENVIRONMENT INFORMATION

All packages should be stored under cover to avoid the possible ingress of water and the obliteration of drum markings. Avoid sunlight. It is thermally stable and does not oxidize or degrade during storage. Health, safety and environmental information is provided for this product in the relevant Materials Safety Data Sheet, which can be obtained by contacting Gulf Western Oil on: 02 9673 9600.

AVAILABLE PACK SIZES

Drum - 205LT, Pail - 20LT

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