



ON Immersion Cooling Fluid DC 20

Immersion Cooling Fluid

Description

Castrol ON Immersion Cooling Fluid DC 20 is synthetic based dielectric coolant

Application

Immersion Cooling Fluid DC20 is designed for use in electrical/electronic cooling of closed loop systems. It has excellent flow properties and offers a high specific heat in comparison to other hydrocarbons, esters, and silicone fluids. This product also provides a superior oxidative stability, low temperature properties and excellent hydrolytic stability. DC20 has excellent dielectric properties and is harmless to most common metals of construction. It is compatible with (low acrylonitrile) BUNA N compounds and fluoroelastomers such as Viton.

Advantages

- Excellent flow properties
- High specific heat in comparison to other hydrocarbons, esters, and silicone fluids.
- Superior oxidative stability, low temperature properties and excellent hydrolytic stability.
- Excellent dielectric properties and is harmless to most common metals of construction.
- Compatible with (low acrylonitrile) BUNA N compounds and fluoroelastomers such as Viton.

Typical Characteristics

Name	Method	Units	DC 20
Density @ 15.6°C / 60°F	ISO 12185 / ASTM D4052	kg/m ³	797
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm ² /s	5.1
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm ² /s	1.7
Kinematic Viscosity @ 20°C / 104°F	ISO 3104 / ASTM D445	mm ² /s	9.2
Kinematic Viscosity @ 0°C / 104°F	ISO 3104 / ASTM D445	mm ² /s	19.8
Kinematic Viscosity @ -40°C / 104°F	ISO 3104 / ASTM D445	mm ² /s	255
Pour Point	ISO 3016 / ASTM D97	°C/°F	-75
Water Content ppm	ASTM D6304	ppm	<10
Flash Point - closed cup method	ISO 2719 / ASTM D93	°C/°F	159
Fire Point	ISO 2592 / ASTM D92	°C/°F	179
Autoignition temperature	ASTM E659	°C/°F	290
Copper corrosion, 3 hrs@100°C/212°F	ISO 2160 / ASTM D130	Rating	1b
Breakdown Voltage	DIN EN 60156	KV	>35

Name	Method	Units	DC 20
Dielectric strength	DIN EN 60156	kV/mm	>14
Conductivity @ 25°C / 77°C	ASTM D2624	pS/m	<35
Dielectric constant @ 25°C / 77°C	ASTM D924	-	2.06
Vapour Pressure @20°C / 68°F @40°C / 104°F @60°C / 140°F	Ebulliometer	Pa	0.021 0.160 0.927
Specific Heat @0°C / 32°F @20°C / 68°F @40°C / 104°F @60°C / 140°F @80°C / 176°C	ASTM D7896	kJ/kgK	1.98 2.03 2.08 2.15 2.20
Thermal conductivity @0°C / 32°F @20°C / 68°F @40°C / 104°F @60°C / 140°F @80°C / 176°C	ASTM D7896	W/mK	0.143 0.139 0.135 0.132 0.129
Particle Count (at filling point)	ISO 4406	-	15/12/07

Subject to usual manufacturing tolerances.

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