Reliant Joules Oil Specifications
Electrical Insulating Oil
(Transformer Oil)

Reliant Joules Oil is a electrical insulating oil is produced from a Severely Hydrotreated Naphthenic Oil to Meet the Specification requierement defined in STM D3487. This Product have a very low pour point and excellent Oxidation stability

TEST DESCRIPTION / METHOD	SPECIFICATIONS		TYPICAL VALUES
Physical Properties	**MIN**	**MAX**	
Viscosity, cSt at 100°C ASTM D445		3.0	2.4
Viscosity, cSt at 40°C ASTM D445		12.0	9.4
Viscosity, cSt at 0°C ASTM D445		76.0	63.7
Specific Gravity, 15°C/15°C ASTM D4052		0.9100	0.8841
Flash Point, COC, °C ASTM D92	145		155
Color, ASTM ASTM D1500		0.5	L0.5
Pour Point, °C ASTM D5950		-40	-63
Aniline Point, °C ASTM D611	63		77
Interfacial Tension, 25°C, dynes/cm ASTM D971	40		48
Visual Examination, 25°C ASTM D1524		Clear & Bright	Clear & Bright
Electrical Properties			
Dielectric Breakdown at 60 Hz, Disk electrodes, kV ASTM D877		30	42
Dielectric Breakdown at 60 Hz, VDE, kV (1.0-mm) gap ASTM D1816		20	25
Dielectric Breakdown at 60 Hz, VDE, kV (2.0-mm) gap ASTM D1816		35	49
Impulse Breakdown Voltage, kV at 25°C ASTM D3300		145	>300
Power Factor at 60 Hz, 25°C, % ASTM D924		0.05 0.	011
Power Factor at 60 Hz, 100°C, % ASTM D924		0.30 0.	032
Gassing Tendency, µL/min ASTM D2300		30	16
Chemical Properties			
Oxidation Stability, 110°C ASTM D2440			
72 hr: Sludge, % by mass		0.1	0.01
Total Acid Number, mg KOH/g		0.3	0.01
164 hr: Sludge, % by mass		0.2	0.01
Total Acid Number, mg KOH/g		0.4	0.01
Oxidation Stability (Pressure Vessel), minutes ASTM D2112	195		267
Oxidation Inhibitor Content, wt% ASTM D2668	0.15	0.30	0.27
Corrosive Sulfur ASTM D1275		Noncorrosive	Noncorrosive
Water Content, ppm ASTM D1533		35	13
Neutralization Number, mg KOH/g ASTM D974		0.03	<0.01
PCB Content, ppm ASTM D4059		Not Detected	Not Detected
Furanic Compounds, µg/L ASTM D5837		25	2
Health and Safety Properties (not an ASTM D3487 requirement)			
Polycyclic Aromatic Compounds, wt% IP 346		3	<3
Modified Ames Assay, MI ASTM E1687 1 <1			
FDA Regulation 21 CFR 178.3620 (C)		PASS	PASS

Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

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