

HYTRANS[®] 61 is a specially processed, inhibited, naphthenic transformer oil made in the U.S.A. It's severely hydrotreated using wax-free, ultra-low sulfur feedstocks and the latest technology.

It does not contain corrosive sulfur or harmful polychlorinated biphenyls (PCBs). The special processing and the low moisture content of HYTRANS[®] 61 insures high electrical resistance and both thermal and oxidative stability.

HYTRANS[®] 61 is highly stable and noncorrosive to copper. Its low pour point and low viscosity provides excellent conductive heat transfer under all operating conditions.



Contact:
Ryan Eberly
Dir. - Sales & Mktg, Special Products
Email: ryane@sjr.com

Performance Features

- Meets or exceeds the performance requirements of ASTM D3487, CSA-C50 Class B standards and DOBLE TOPS specifications.
- HYTRANS[®] 61 is colorless, odorless, non-carcinogenic and non-hazardous.
- Designed for Type II applications.
- High oxidation stability limits the formation of sludges, deposits and soluble compounds which break down the electrical properties of the oil in extended service conditions.
- High dielectric strength and low dissipation factor provides excellent insulating characteristics.
- Excellent conductive heat transfer properties improve cooling of transformer components prolonging life.
- Rapid quenching of arcs reduces contact erosion.
- Contains no corrosive sulfur and does not require passivators
- Full compatibility with existing naphthenic insulating oils.

Applications

HYTRANS[®] 61 is recommended for use in arc-forming apparatus such as:

- switches
- oil-immersed transformers
- circuit breakers
- electrical reclosures
- fuses
- oil filled capacitors
- tap changers

PROPERTY	TEST	HYTRANS 61	ASTM D3487 TYPE II	CSA-C50 CLASS B TYPE II
PHYSICAL PROPERTIES				
Appearance	Visual	Clear & Bright	Clear & Bright	N/A
Color	ASTM D1500	L0.5	0.5 max	0.5 max
Specific Gravity @ 15°C	ASTM D1298	0.8890	0.91 max	0.906 max
Kinematic Viscosity, cSt @ 100°C	ASTM D445	2.31	3.0 max	N/A
Kinematic Viscosity, cSt @ 40°C	ASTM D445	9.63	12.0 max	12 max
Kinematic Viscosity, cSt @ 0°C	ASTM D445	62.0	76 max	76 max
Kinematic Viscosity, cSt @ -40°C	ASTM D445	3874.5	N/A	6000 max
Pour Point, °C	ASTM D5950	-60	-40 max	-40 max
Interfacial Tension @ 25°C, dynes/cm	ASTM D971	51	40 min	40 min
Flash Point, °C	ASTM D92	156	145 min	145 min
CHEMICAL PROPERTIES				
Neutralization Number, mg KOH/g	ASTM D974	<0.01	0.03 max	0.03 max
Water Content, ppm	ASTM D1533	15	35 max	35 max
Corrosive Sulfur	ASTM D1275B	Non-corrosive	Non-corrosive	Non-corrosive
PCB Content, ppm	ASTM D4059	<1ppm	Not detectable	2 max
Oxid. Stability, wt.% Sludge @ 72h	ASTM D2440	0.01	0.1 max	N/A
Oxid. Stability, Neut # mg KOH/g @ 72h	ASTM D2440	<0.01	0.3 max	N/A
Oxid. Stability, wt.% Sludge @ 164h	ASTM D2440	0.01	0.2 max	0.05 max
Oxid. Stability, Neut # mg KOH/g @ 164h	ASTM D2440	<0.01	0.4 max	0.2 max
Inhibitor Content, wt%	ASTM D2668	0.22	> 0.08 - 0.30	> 0.08 - 0.40
Rotary Pressure Vessel Oxidation Test, min	ASTM D2112	280	195 min	195 min
ELECTRICAL PROPERTIES				
Dielectric Breakdown Voltage, @ 60Hz Disk Electrode, min, kV	ASTM D877	55	30 min	30 min
Dielectric Breakdown Voltage, @ 60Hz 1 mm gap, min, kV	ASTM D1816	44	20 min	24 min *
2 mm gap, min, kV		60		56 min **
Dielectric Breakdown Impulse, kV	ASTM D3300	>300	145 min	145 min
Gassing Tendency, uL/min	ASTM D2300	+22	+30 max	N/A
Power Factor @ 60Hz, 100°C, ppm (w%)	ASTM D924	0.0038ppm (0.038 w%)	(0.30 max)	0.005 max
Power Factor @ 60Hz, 25°C, ppm (w%)	ASTM D924	0.00001ppm (0.001w%)	(0.05 max)	0.0005 max
The figures above are typical of normal production tolerances and do not constitute a specification.				

* Following transport (unprocessed oil).

** After filtering, drying and degasification (new processed oil).

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