

Nytro Orion

Distribution insulating oil

Nytro Orion is an inhibited transformer oil that conforms to ANP 36/08 Brazilian specification. Developed and formulated to deliver solid resistance to oil degradation, Nytro Orion provides good oxidation stability thanks to its base oil response to added anti-oxidant. This increases the possibilities for a longer transformer life with less maintenance.

Designed for long term duty

This product has been specially developed for use in oil-filled electrical equipment with voltages below 72 kV

Performance and benefits

Good heat transfer. Thanks to low viscosity and viscosity index, this standard grade offers good heat transfer characteristics, ensuring heat is efficiently removed from core and windings.

Reliable oxidation stability. Developed and formulated to deliver good resistance to oil degradation, this grade also provides good oxidation stability for enhanced transformer life and minimum maintenance.

Very good low temperature properties. Naphthenic characteristics allow the transformer to start at the lowest possible temperature – without using pour point depressants.

High dielectric strength. This insulating oil both meets and exceeds the toughest demands on dielectric strength – when stored and handled correctly.

Product description

Nytro Orion fulfils the requirements for ANP 36/08 type A inhibited oil in Brazilian specification. Nynas classify this product as a standard grade.

Nytro Orion is rigorously analyzed and passes the following corrosion tests:

- ASTM D1275
- IEC 62535
- DIN 51353

In accordance with ANP 36/08 Brazilian specification, all additives are declared.

There's more to us than this

We're delighted you chose one of our transformer oils. If you have any questions about other products and services, get in touch with your local Nynas contact. Besides top quality oils, we offer a wide range of services, including rapid delivery worldwide, sample analysis, training, seminars and much more. All you have to do is ask. Find out more at www.nynas.com



PROPERTY	UNIT	TEST METHOD	SPECIFICATION LIMITS		TYPICAL DATA
			MIN	MAX	
Physical					
Appearance		ASTM D 1524	Clear and bright		complies
Density, 20°C	kg/dm ³	ASTM D 1298	0.861	0.900	0.892
Viscosity, 40°C	mm ² /s	ASTM D 445		12.0	11.0
Viscosity, 100°C	mm ² /s	ASTM D 445		3.0	2.7
Flash point, COC	°C	ASTM D 92	140		156
Pour point	°C	ASTM D 97		-39	-51
Colour		ASTM D 1500		1.0	<0.5
Interfacial tension at 25°C	mN/m	ASTM D 971	40		47
Chemical					
Total acid No.	mg KOH/g	ASTM D 974		0.03	<0.01
Corrosive sulphur, Cu		NBR 10505	non-corrosive		non-corrosive
Total sulphur	wt %	ASTM D 2622			0.02
Antioxidant, DBPC	wt %	ASTM D 2668	0.27	0.33	0.30
Water content	mg/kg	ASTM D 1533B		35	<25
PCA	wt %	IP 346		3.0	<3.0
PCB	mg/kg	ASTM D 4059	not detectable		not detectable
Electrical					
Dielectric dissipation factor at 100°C	%	ASTM D 924		0.50	<0.10
Breakdown voltage	kV	IEC 60156	42		>50
Impulse breakdown	kV	ASTM D 3300	145		>160
Gassing tendency	µl /min	ASTM D 2300			<+15
Oxidation Stability					
After 164 h		ASTM D 2440			
- Sludge	Wt %			0.2	<0.01
- Neutralization No.	mg KOH/g			0.4	0.05
Rotating Bomb test	minutes	ASTM D 2112	220		252

Nytro Orion is an inhibited insulating oil developed for distribution transformers, meeting the Brazilian standard ANP 36/08, and should only be used in applications with a nominal voltage level less than 72 kV.

Severely Hydrotreated Insulating Oil
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