

Nytro Bear

Electrical insulating oil

Nytro Bear is a CAN/CSA-C50-14 class B type II and ASTM D3487-16 type II transformer oil. Developed and formulated to deliver solid resistance to oil degradation, Nytro Bear provides good stability for a longer transformer life with less maintenance.

Designed for heavy duty

This product has been specially developed for use in oil-filled electrical equipment – including power and distribution transformers, rectifiers, circuit breakers and switchgears.

Performance and benefits

Good heat transfer. Thanks to low viscosity and viscosity index, this high grade offers extremely 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 Bear is an inhibited oil and fulfils the requirements for CAN/CSA-C50-14 class B Type II and ASTM D 3487-16 Type II. Nynas classify this product as a high grade.

Nytro Bear is rigorously analysed and passes the following corrosion tests:

- ASTM D1275
- IEC 62535
- DIN 51353

PCB: Not detectable according to ASTM D 4059

DBDS: Not detectable according to IEC 62697-1.

Metal passivators: Not detectable according to IEC 60666.

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



Nyro Bear

PROPERTY	UNIT	TEST METHOD ASTM	SPECIFICATION LIMITS		TYPICAL DATA
			MIN	MAX	
Physical					
Aniline Point	°C	D 611	63		77
Colour		D 1500		0.5	<0.5
Flash Point, COC	°C	D 92	145		154
Interfacial tension at 25°C	mN /m	D 971	40		48
Pour Point	°C	D 97 / D 5950		-40	-48
Relative Density at 15°C/15°C		D 1298 / D 4052		0.906	0.882
Viscosity, 100°C	mm ² /s	D 445			2.4
Viscosity, 40°C	mm ² /s	D 445		12.0	9.2
Viscosity, 0°C	mm ² /s	D 445		76	53
Viscosity, -40°C	mm ² /s	D 445		6000	5400
Visual Examination		D 1524	Clear and bright		complies
Electrical					
Breakdown voltage at 60 Hz		D 1816			
- VDE electrodes, As received	kV	1 mm gap	20		>40
- VDE electrodes, As received	kV	2 mm gap	24		>46
- VDE electrodes, As processed*	kV	2 mm gap			>70
Dielectric breakdown voltage, impulse conditions, negative polarity point	kV	D 3300	145		>300
Gassing tendency	µL /minute	D 2300			+8
Dielectric dissipation factor at 60 Hz		D 924			
- 100°C	%			0.3	<0.1
- 25°C	%			0.05	0.001
Chemical					
Oxidation stability		D 2440			
- 72 h, sludge	% by mass				0.01
- 72 h, total acid number	mg KOH/g				0.04
- 164 h, sludge	% by mass			0.05	0.02
- 164 h, total acid number	mg KOH/g			0.2	0.06
Pressure vessel test	minutes	D 2112	195		252
Oxidation inhibitor content	% by mass	D 2668	0.08	0.30	0.28
Corrosive sulphur		D 1275			
- Copper				non-corrosive	non-corrosive
- Silver				non-corrosive	non-corrosive
Water	mg/kg	D 1533		35	<20
Neutralization number	mg KOH/g	D 974		0.03	<0.01
Furanic compounds, per compound	µg/L	D 5837		25	<25
PCB Content	mg/kg	D 4059		not detectable	not detectable

Nyro Bear is an inhibited insulating oil, meeting the specification CAN/CSA-C50-14 class B, type II and ASTM D3487-16, type II.

*As per definition given by ASTM D 3487-16 appendix X2.2.1.1, processing involves filtering, dehydration and degassing.

Severely Hydrotreated Insulating Oil
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