

# Nytro 11GBX-US

Electrical insulating oil

Nytro 11GBX-US is a type II ASTM D3487 transformer oil. Developed and formulated to deliver solid resistance to oil degradation, Nytro 11GBX-US provides good oxidation 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 standard 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 11GBX-US is an inhibited oil and fulfils the requirements for ASTM D 3487 Type II. Nynas classify this product as a high grade.

Nytro 11GBX-US is rigorously analysed and passes the following corrosion tests:

- ASTM D1275 method B
- IEC 62535
- DIN 51353

PCB: Not detectable according to ASTM D 4059

DBDS: Not detectable according to method using GC-AED.

## 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](http://www.nynas.com)



## Nytro II GBX-US

PROPERTY	UNIT	TEST METHOD ASTM	SPECIFICATION LIMITS		TYPICAL DATA
			MIN	MAX	
Physical					
Appearance		D 1524	Clear and bright		complies
Density, 15 °C	kg/dm³	D 1298		0.910	0.883
Viscosity, 40 °C	mm²/s	D 445		12.0	9.4
Viscosity, 100 °C	mm²/s	D 445		3.0	2.4
Viscosity, 0 °C	mm²/s	D 445		76	60
Flash Point, COC	°C	D 92	145		156
Pour Point	°C	D 97		-40	-57
Aniline Point	°C	D 611	63		77
Colour		D 1500		0.5	<0.5
Interfacial tension at 25 °C	mN /m	D 971	40		49
Chemical					
Total acid No.	mg KOH/g	D 974		0.03	<0.01
Corrosive sulphur		D 1275 B	non-corrosive		non-corrosive
Antioxidant, phenols	Wt %	D 2668		0.3	≤0.3
Water content	ppm	D 1533		35	<20
PCB Content	ppm	D 4059	not detectable		not detectable
Electrical					
Dielectric dissipation factor at 100 °C	%	D 924		0.3	<0.1
Breakdown voltage					
- As received	kV	D877	30		>40
- As received	kV	D 1816 (0.08"gap)	35		>50
- As processed	kV	D 1816 (0.08"gap)	56		>70
- Impulse breakdown	kV	D 3300	145		>300
Gassing tendency	µl /min	D 2300B		+30	+7
Oxidation Stability					
After 72 h		D 2440			
- Sludge	Wt %			0.1	<0.02
- Neutralization No.	mg KOH/g			0.3	0.01
After 164 h					
- Sludge				0.2	<0.02
- Neutralization No.				0.4	0.02
Rotating Bomb test	minutes	D 2112	195		340

Nytro 11GBX-US is an inhibited insulating oil, meeting all requirements in the specification ASTM D3487, type II.

Severely Hydrotreated Insulating Oil  
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