

Nytro 10XN

Maximum performance insulating oil

Nytro 10 XN is an inhibited super grade that conforms to both ASTM D3487-16 and IEC 60296 Edition 4.0, including the fulfilment of specific requirements for special applications. Developed and formulated to deliver maximum resistance to oil degradation, Nytro 10 XN provides outstanding oxidation stability for a longer transformer life with less maintenance. This makes it a popular choice worldwide.

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

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

Outstanding oxidation stability. Developed and formulated to deliver maximum resistance to oil degradation, this grade provides outstanding 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 10 XN is an inhibited oil and fulfils the requirements for ASTM D 3487-16 Type II. Nynas classify this product as a super grade.

Nytro 10 XN is rigorously analysed and passes the following corrosion tests:

- ASTM D 1275
- 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



PRODUCT DATA SHEET
Nyro 10XN

| PROPERTY | UNIT | TEST METHOD ASTM | SPECIFICATION LIMITS | | TYPICAL DATA |
|---|--------------------|---------------------|----------------------|----------------|----------------|
| | | | MIN | MAX | |
| Physical | | | | | |
| Aniline Point | °C | D 611 | 63 | | 78 |
| Colour | | D 1500 | | 0.5 | <0.5 |
| Flash Point, COC | °C | D 92 | 145 | | 150 |
| Interfacial tension at 25°C | mN /m | D 971 | 40 | | 49 |
| Pour Point | °C | D 97 / D 5950 | | -40 | -63 |
| Relative Density at 15°C/15°C | | D 1298 / D 4052 | | 0.910 | 0.877 |
| Viscosity, 100°C | mm ² /s | D 445 | | 3.0 | 2.1 |
| Viscosity, 40°C | mm ² /s | D 445 | | 12.0 | 7.7 |
| Viscosity, 0°C | mm ² /s | D 445 | | 76 | 48 |
| 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 | 35 | | >50 |
| - 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 | | | +34 |
| 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 | | | 0.1 | <0.01 |
| - 72 h, total acid number | mg KOH/g | | | 0.3 | <0.01 |
| - 164 h, sludge | % by mass | | | 0.2 | <0.01 |
| - 164 h, total acid number | mg KOH/g | | | 0.4 | <0.01 |
| Pressure vessel test | minutes | D 2112 | 195 | | 410 |
| 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 |
| Sludge-free life | h | DOBLE | 80 | | >88 |

Nyro 10XN is an inhibited insulating oil meeting ASTM D3487-16 type II, excluding gassing tendency, and IEC 60296 Ed.4 (2012) special applications.

*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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