

PRODUCT DATA SHEET  
**Nyswitcho 3X**

PROPERTY	UNIT	TEST METHOD	SPECIFICATION LIMITS		TYPICAL DATA
			MIN	MAX	
<b>Physical</b>					
Appearance		IEC 60296	Clear, free from sediment		
Density, 20°C	kg/dm <sup>3</sup>	ISO 12185		0.895	0.860
Viscosity, 40°C	mm <sup>2</sup> /s	ISO 3104		3.5	3.3
Viscosity, -40°C	mm <sup>2</sup> /s	ISO 3104		150	125
Flash Point, PM	°C	ISO 2719	95		98
Pour Point	°C	ISO 3016		-60	<-70
<b>Chemical</b>					
Neutralization value	mg KOH/g	IEC 60296		0.03	<0.01
Corrosive sulphur		ISO 5662	non-corrosive		
Aromatic content	%	IEC 60590			6
Antioxidant, phenols	Wt %	IEC 60666			0.3
Water content	mg/kg	IEC 60814		30	<20
<b>Electrical</b>					
Dielectric dissipation factor at 90°C		IEC 60247		0.005	<0.001
Interfacial tension	mN/m	ISO 6295	40		48
Breakdown voltage					
- Before treatment	kV	IEC 60156	30		40-60
- After treatment	kV	IEC 60296	70		>70
<b>Oxidation Stability</b>					
At 100°C 164h		IEC 61125 A			
Neutralization value	mg KOH/g				<0.01
Sludge	Wt %				<0.005
At 120°C		IEC 61125 B			
Induction period	h		120		>160

**NYSWITCHO 3X** is a low viscosity switch-gear oil which meets specification IEC 60296(82) Class III A. Breakdown voltage after treatment as per definition given in IEC 60296, section 7.12.2.

Severely Hydrotreated Insulating Oil  
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