



BIODEGRADABLE DIELECTRIC FLUID

IEC 63012

DESCRIPTION

NYCODIEL 1233 is a new concept of dielectric fluid based on a low viscosity neopolyol ester. It combines many advantages, such as low viscosity, low temperature, high thermal stability, high fire point and biodegradability.

APPLICATIONS

NYCODIEL 1233 has been designed to combine the benefits of mineral oil in terms of low viscosity to improve cooling or low temperature operability and the advantages of synthetic esters such as high thermal stability, fire safety and biodegradability, as measured according to test methods in IEC 63012.

It is a suitable and safe alternative to mineral oils when biodegradability is required.

NYCODIEL 1233 is particularly adapted to transformers operating in very cold areas. It is also recommended for any electro-technical application where the use of low viscosity insulating fluids is required to maximize cooling efficiency.

BENEFITS

- Low viscosity at very low temperature
- Excellent oxidation stability according to IEC 61125 method C
- Low calorific value and high fire point, meets IEC 61039 O3
- Biodegradable according to OECD 301B
- Not hazardous to the environment

PROPERTIES	UNIT	TYPICAL RESULT	IEC 63012	TEST METHOD
Appearance	-	Limpid	Limpid	Visual examination
Colour APHA	-	80	max. 200	ISO 2211
Density at 20°C	kg/dm ³	0.953	max. 1	ISO 12185
Kinematic viscosity @ 100°C 40°C -20°C -50°C (168h)	mm ² /s	3.81 16.1 400 11500	- 12.0 – 20.0 - -	ISO 3104
Pour point	°C	-66	max. -25	ISO 3016
Flash point PM	°C	248	min. 135	ISO 2719
Fire point	°C	284	-	ISO 2592
Inferior Heating Power	MJ/kg	32	-	ASTM D240
Water content	mg/kg	55	max. 200	IEC 60814
Acid value	mg KOH/g	0.01	max. 0.06	IEC 62021-2
Oxidation stability 164h Total acid Total deposit	mg KOH/g %	0.09 0.004	max. 0.3 max. 0.01	IEC 61125 method C
Oxidation stability 800h Total acid Total deposit	mg KOH/g %	0.23 0.005	-	IEC 61125 method C
Breakdown voltage	kV	65	min. 35	IEC 60156
Dielectric dissipation factor 90°C and 50Hz	-	0.01	max. 0.05	IEC 60247
Resistivity @ 90°C	GΩ.m	10	-	IEC 60247
Biodegradability, 28 days	%	90	-	OECD 301B

The values above are typical values. They do not constitute any contractual commitment.

Sales specifications are available on request. The present technical data sheet replaces all the previous editions.