



BIODEGRADABLE DIELECTRIC FLUID

IEC 61099 : 2010 - IS 16081

DESCRIPTION

NYCODIEL 1255 is a biodegradable dielectric fluid based on a high performance synthetic ester.

APPLICATIONS

NYCODIEL 1255 is particularly recommended for use in power transformers, traction transformers, distribution transformers, and environmentally sensitive applications like wind turbine transformers.

NYCODIEL 1255 combines improved heat resistance, fire safety, low temperature capability and excellent environmental profile, compared to mineral, vegetable or silicone-based products.

NYCODIEL 1255 is approved by the major transformer manufacturers. It is also approved to be used with MR VACUTAP®, DEETAP® and COMTAP® tap-changers.

BENEFITS

- Meets IEC 61099:2010
- Excellent oxidation stability according to IEC 61125 method C
- Low calorific value and high fire point, meets IEC 61039 K3
- Biodegradable according to OECD 301B
- Not hazardous to the environment

PROPERTIES	UNIT	TYPICAL RESULT	IEC 61099	TEST METHOD
Appearance	-	Limpid	Limpid	Visual examination
Colour APHA	-	50	max. 200	ISO 2211
Density at 20°C	kg/dm ³	0.970	max. 1	ISO 12185
Kinematic viscosity @ 100°C 40°C -20°C -30°C -40°C	mm ² /s	5.1 27.2 1170 3650 14100	- max. 35 max. 3000 - -	ISO 3104
Pour point	°C	-57	max. -45	ISO 3016
Flash point PM	°C	255	min. 250	ISO 2719
Flash point COC	°C	263	-	ISO 2592
Fire point	°C	316	min. 300	ISO 2592
Inferior Heating Power	MJ/kg	31.8	-	ASTM D240
Water content	mg/kg	30	max. 200	IEC 60814
Acid value	mg KOH/g	0.01	max. 0.03	IEC 62021-2
Oxidation stability Total acid Total deposit	mg KOH/g %	0.08 0.003	max. 0.3 max. 0.01	IEC 61125 method C
Breakdown voltage	kV	75	min. 45	IEC 60156
Dielectric dissipation factor 90°C and 50Hz	-	0.01	Max. 0.03	IEC 60247
DC Resistivity @ 90°C	GΩ.m	>50	min. 2	IEC 60247
Relative permittivity @ 20°C	-	2.98	-	IEC 60247
Thermal expansion coefficient	°C ⁻¹	8.3 10 ⁻⁴	-	-
Heat capacity @ 20°C @ 90°C	J/kg.K	1923 2063	-	-
Thermal conductivity @ 24°C @ 92°C	W/m.K	0.142 0.132	-	-
Biodegradability, 28 days	%	72	-	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.