



# BIODEGRADABLE DIELECTRIC FLUID

IEC 61099:2010

## DESCRIPTION

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

## APPLICATION

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

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

## FEATURES

- **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**

TND1255-E8a

[www.nycodiel.com](http://www.nycodiel.com)

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.





Properties	Unit	Typical result	IEC 61099	Test method
Colour Apha	-	50	max. 200	ISO 2211
Appearance	-	Limpid	Limpid	Visual examination
Density at 20°C	kg/dm <sup>3</sup>	0.970	max. 1	ISO 12185
<b>Kinematic viscosity</b>				
at 100°C		5.1	-	
at 40°C		27.2	max. 35	
at -20°C	mm <sup>2</sup> /s	1170	max. 3000	ISO 3104
at -30°C		3650	-	
at -40°C		14100	-	
Flash point PM	°C	255	min. 250	ISO 2719
Flash point COC	°C	263	-	ISO 2592
Fire point	°C	316	min. 300	ISO 2592
Pour point	°C	-57	max. -45	ISO 3016
Water content	mg/kg	30	max. 200	IEC 60814
Acid value	mg KOH/g	0.01	max. 0.03	IEC 62021-2
<b>Oxidation stability</b>				
- Total acid	mg KOH/g	0.08	max. 0.3	IEC 61125
- Total deposit	%	0.003	max. 0.01	Method C
Breakdown voltage	kV	75	min. 45	IEC 60156
Dielectric dissipation factor 90°C and 50Hz	-	0.01	max. 0.03	IEC 60247
Resistivity at 90°C	GΩ.m	10	min. 2	IEC 60247
Relative permittivity at 20°C	-	2.98	-	IEC 60247
Thermal expansion coefficient	°C <sup>-1</sup>	8.3 10 <sup>-4</sup>	-	-
<b>Heat capacity</b>				
at 20°C	J/kg.K	1923	-	-
at 90°C		2063		
Low calorific value	MJ/kg	31.8	-	ASTM D240
<b>Thermal conductivity</b>				
at 24°C	W/m.K	0.119	-	-
at 92°C		0.128		
Biodegradability, 28 days	%	72	-	OECD 301B

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