Nycodiel 1244

BIODEGRADABLE DIELECTRIC FLUID

IEC 61099 : 1992

Description

Nycodiel 1244 is a biodegradable dielectric fluid ISO VG 22 based on formulated high performance synthetic ester.

Application

Nycodiel 1244 has been developed to fulfil the demand of the electrical industry looking for technical and biodegradable alternative to naphtenic based products.
Nyco's expertise in specialty ester synthesis, associated with its knowledge in additive formulation allow to offer a dielectric fluid matching the IEC 61099 standard.
Nycodiel1244 is used in transformer oil as coolant and for its dielectric properties. Nycodiel1244 is also used as sparks quencher generated by the open electrical contacts.

Advantages

- **Matches IEC 61099 standard**
- **Excellent oxidation stability (IEC 61125)**
- **Meets K3 classification (IEC 61100)**
- **Very low water content**
- **Biodegradability (OECD 301B)**
- **NWG (UBA) (Not Hazardous to water)**
- **Based on renewable raw materials**

Characteristic		Unit	Result	Limit	Test method
- Appearance		-	Limpid	Limpid	Visual
- Colour Apha		-	50	max. 200	ISO 2211
- Density at 20℃		kg/dm ^{3}	0.983	max. 1	ISO 12185
- Kinematic viscosity at	100℃ 40℃ - 20℃	mm²/s	4.6 21.8 653	- max 35 max 3000	ISO 3104
- Viscosity index		-	132	-	ISO 2909
- Acid value		mg KOH/g	0.01	Max 0.03	ISO 6618
- Flash point COC		℃	275	-	ISO 2592
- Flash point PM		℃	260	min 250	ISO 2719
- Fire point		℃	304	min 300	ISO 2592
- Pour point		℃	- 45℃	max - 45℃	ISO 3016
- Dielectric dissipation factor 90℃ et 50Hz		-	0.02	max 0.030	IEC 60247
- Breakdown voltage		kV	> 60	min 45	IEC 60156
- Water content		mg/kg	50	max 200	MO-10-001
- Resistivity at 90℃		G · .m	7.5	min 2	IEC 60247
- Permittivity at 90℃		-	3.10	-	IEC 60247
- Crystallisation		-	Pass	No crystals	IEC 61099
- Oxidation stability	Total acid Total deposit	mg KOH/g %	0.08 0.007	max 0.30 max 0.010	IEC 61125 Method C
- Particles count 5 to 15 µ		-	564	10 000	H.I.A.C.
- Expansion coefficient		℃ $^{-1}$	7 x 10^{-4}		
- Calorific capacity	at 20℃ at 90℃	J/kg/°K	1730 ± 87 1910 ± 96		
- Thermal conductivity	at 24℃ at 92℃	W/m°K	0.142 ± 0.007 0.139 ± 0.007		
- Biodegradability		%	83		OECD 301B
- % renewable raw materials		%	62		calculation

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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.

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