



# Insulating Oil

#### MAKER BIO ELECTRA SYNTH

### **Description**

Dielectric transformer oil based on synthetic esters, manufactured using raw materials specially selected to obtain a very high performance fluid. It has excellent oxidative stability and a very low pour point, so it is well suited to cold climates. The high flash point of the oil allows its use in areas with security restrictions regarding the flammability of the oil.

#### **Properties**

- High oxidative stability
- Highly biodegradable
- Wide range of working temperatures
- Exceptional performance at very low temperatures
- Fire-resistant: fire point above 300 °C

### Quality levels, approvals and recommendations

• IEC 61099

• IEC Classified as a K3 liquids according to IEC 61100

# **Technical specifications**

	UNIT	METHOD	VALUE
Acidity (neutralisation index)	mg KOH/g	IEC 62021	0,01
Water content	ppm	ASTM D6304	<60
Oxidation stability - Volatile acidity	mg KOH/g	IEC 61125	0.01
Oxidation stability - Soluble acidity	mg KOH/g	IEC 61125	0.04
Oxidation stability - Total acidity	mg KOH/g	IEC 61125	0.05
Oxidation stability - Total sludge	% in weight	IEC 61125	<0.01
Colour	-	Visual	30
Dielectric loss factor at 90 °C	-	IEC 60247	0.005
Appearance	-	Visual	B & T
Density at 20 °C	g/cm3	DIN 51757-4	0.969
Biodegradability - 28 days	%	OECD 301B	72
Ecotoxicity in aquatic environment	mg/L	OECD 201, 202 y 203	→1,000
Kinematic viscosity at 40 °C	cSt	ASTM D445	27.4
Kinematic viscosity at - 20 °C	cSt	ASTM D445	1.196
Fire point	°C	ASTM D92	308
Freezing point	°C	ASTM D1177	-54
Flash point, closed cup	°C	ASTM D93	255

The above mentioned characteristics are typical values and should not be considered product specifications.