SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

Dolphon® XL-2102 OPT 1K Resin

Dolphon® XL-2102 OPT is a 1K resin based on polyester.

Attributes

Dolphon® XL -2102 OPT is characterised by the following properties:

- UL-approved
- very low weight loss on cure
- very low odour
- excellent wetting properties
- good bond strength
- fast curing cycles

Application

Dolphon® XL-2102 OPT is a trickle resin which can also be used as a fast curing dip resin for

- armatures
- rotors
- stators

Standards

- UL-approved class H (180 °C), File OBOR2.E317427, OBJS2.E317429
- UL-System-approved from 130 - 220 °C
- UL-approved with magnet wire

temperature class acc. UL 1446:

magnet wire	Twisted pairs	Helical coils
MW 16-C	220 °C	-
MW 28-C	130 °C	-
MW 35-C	180 °C	200 °C

Delivery forms

Dolphon® XL-2102 OPT is delivered in 25 kg disposable containers or in 230 kg barrels.

Storage

Dolphon® XL -2102 OPT can be stored for 18 months at room temperature in a sealed container (max. 30 °C).
The trickle and dip resin must be stored in a cold place and protected against direct sunlight, UV radiation and sources of heat.
Always observe general rules and regulations.

The information on this data sheet is based on the information provided by our supplier. It does not represent any specification or agreements regarding conditions or properties. The indicated values are standard values. Deviations from those values due to production and application cannot be excluded. The information on this data sheet is addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed on the safety data sheet.
Updated 04/24

SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

Processing

Exemplary impregnating process suggestion:

Trickle-process

1. Pre-heat the object to approx. 105-120 °C
2. Trickle the resin on the unit, keeping it in slow rotation
3. Cure at 150-160 °C for 20-30 min

Roll-Through-process

1. Pre-heat the object to 80-90 °C
2. Roll the object in the resin
3. Bring rapidly the object to a temperature of 140 °C to gel the resin
4. Bake for about 30 min at 140-150 °C

Pre-heating is not necessary if the object is dry. Times apply when the object temperature has been reached.

Cleaning

Since the cured trickle and dip resin is practically insoluble, the tools have to be cleaned as soon as possible with a suitable solvent. Maintenance and care impregnating plants, especially cleaning, must be carried out according to operational requirements. Always refer to the user manual of the plant.

The information on this data sheet is based on the information provided by our supplier. It does not represent any specification or agreements regarding conditions or properties. The indicated values are standard values. Deviations from those values due to production and application cannot be excluded. The information on this data sheet is addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed on the safety data sheet.
Updated 04/24

SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

Mechanical	Unit of measure	Conditions	Values	Test method
Weight loss	%	15 g of resin at 100-140 °C for 20 min	< 1.3	
Gel time	min	at 100 °C	8-20	
Bond strength	N	25 °C	>180	IEC 61033, HC
Bond strength	N	80 °C	>90	IEC 61033, method B, HC, MW 35
Bond strength	N	155 °C	>30	IEC 61033, HC

Thermal	Unit of measure	Value	Test method
Thermal class	°C	130	TP MW 28-C
Thermal class	°C	180	TP MW 35-C
Temperature index	°C	200	HC MW 35-C
Temperature class	°C	220	TP MW 16-C
Flashpoint	°C	>130	

Electrical	Unit of measure	Value	Test method
Dielectric strength	kV/mm	>128	ASTM D-115, 25 °C

The information on this data sheet is based on the information provided by our supplier. It does not represent any specification or agreements regarding conditions or properties. The indicated values are standard values. Deviations from those values due to production and application cannot be excluded. The information on this data sheet is addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed on the safety data sheet.
Updated 04/24

SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

Electrical	Unit of measure	Value	Test method
Volume resistivity	Ω x cm	>10^15	IEC 60464-2 at 25 °C
Dielectric constant		3.3	ASTM D-150. 25 °C/50 Hz
Volume resistivity	Ω x cm	>10^12	IEC 60464-2 part 2, after 7 days water immersion
Surface resistivity	Ω	>10^15	IEC 60464-2

Chemical	Unit of measure	Conditions	Value	Test method
Water absorption	%	90 min at 100 °C	< 1.5	ASTM D 570
Water absorption	%	24h at 25 °C	< 1	ASTM D 570
Resistance		Xylene, Methanol, Hexane	yes	IEC 60464 part 2
Resistance		10 % hydrochloric acid	< 2.5 %	ISO 175 - 7 days
Resistance		30 % sulfuric acid	< 1.5 %	ISO 175 - 7 days
Resistance		Transformer oil	< 0.5 %	ISO 175 - 7 days

Liquid phase	Unit of measure	Conditions	Values	Test method
Viscosity	s	at 25 °C	100-150	Ford Cup 4

The information on this data sheet is based on the information provided by our supplier. It does not represent any specification or agreements regarding conditions or properties. The indicated values are standard values. Deviations from those values due to production and application cannot be excluded. The information on this data sheet is addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed on the safety data sheet.
Updated 04/24

SynFlex Elektro GmbH
Auf den Kreuzen 24
D-32825 Blomberg Germany
Telefon +49-5235-968-0
E-Mail info@synflex.de

Liquid phase	Unit of measure	Conditions	Values	Test method
Viscosity	s	at 25 °C	70-100	ISO Cup 6
Specific density	g/cm³	at 25 °C	1,10-1,20	

The information on this data sheet is based on the information provided by our supplier. It does not represent any specification or agreements regarding conditions or properties. The indicated values are standard values. Deviations from those values due to production and application cannot be excluded. The information on this data sheet is addressed to experts who use it at their own discretion and at their own risk. We do not guarantee results, or accept liability for the indicated specifications or for results obtained based on the specifications. Please contact us for more detailed information. Non-toxic and toxic substances are listed on the safety data sheet.
Updated 04/24