



- TECHNICAL DATA SHEET -

DOLPHON XL-2102 POLYESTER RESIN
CLASS H

DESCRIPTION

DOLPHON XL-2102 is a one-package, 100% solids polyester resin specifically formulated for the dipping impregnation either in open tanks or in vacuum chambers.

Here are some outstanding features of this resin:

- It does not contain neither formaldehyde nor styrene or vinyl toluene.
- Very low weight loss on cure.
- Very low odor.
- Excellent wetting properties.
- Good bond strength.
- Relatively fast cure cycles.
- Medium low viscosity.
- UL recognized systems from 130°C to 220°C.

Recommended uses

DOLPHON XL-2102 one-package polyester resin is suitable for the impregnation of stators, rotors, traction coils, transformers, inductance, etc.

CHARACTERISTICS

Physical properties

Specific gravity at 25°C	1.150±50 gr./lt
Viscosity Ford Cup n.4 at 25°C	120-180"
Flash Point (PMCC)	> 130°C
Gel Time at 110°C	25-40'
Weight loss (gr.10 of resin, 1 h. at 150°C)	< 3,5%

Mechanical properties

Bond Strength: Helical Coil method ASTM D-2519 at 25°C	Kg. to break 18
Bond Strength: Helical Coil method ASTM D-2519 at 150°C	Kg. to break 3

(Test performed on MW35 magnet wire - coils baked 1 h. at 150°C)

Electrical properties

Dielectric Strength ASTM D-115	> 3200 Volts/mm. 0,025
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Heat life

DOLPHON XL-2102 has a heat life of 20.000 hours at 180°C determined by ageing test performed following the ASTM D-3251 method (twisted pairs) using polyester amide-imide magnet wire.



APPLICATION

DOLPHON XL-2102 can be applied both under vacuum and in open dip tanks at atmospheric pressure. For application in open dip tanks or with conveyor systems the following cycle is recommended:

1. Preheat the units to 50-60°C (maximum)
2. Dip into resin for 30-60'
3. Drain for 1h. minimum (assisting with hot air at 80-90°C).
4. Bake 2 ½ hours at 150°C, or 2 h. at 160°C or 75' at 170°C
(times must be taken after units reach the baking temperatures).

For the VPI application the cycle must be set for each machinery.

STORAGE AND STABILITY

DOLPHON XL-2102 is supplied catalyzed. The shelf-life is 18 months at room temperature (max 30°C).

Store the resin in a cool place, protect from direct sunlight and keep away from heat sources. The stability of the resin in the tank can be indefinitely extended with the regular additions of fresh resin and periodically checking the gel-time.

DOLPHON XL-2102 reacts with bare copper, copper alloys and natural rubber. It is therefore not advisable to use these materials in the impregnating plant construction.

Warning: DOLPHON XL-2102 fears the light and is sensible to UV rays. When the product is not used the dipping tanks must be protected from light with covers. The exposition to the light, even for a few hours, may cause a partial gelling on the resin surface.

Warning: All the information and application instructions concerning this product are based on technical specifications that we consider reliable, and are provided by way of example, according to our application experience. They do not establish any guarantee but only represent a starting point subject to alterations, according to the application and the kind of material to be treated. Before the product's use the utilizer must determine the suitability for the intended use undertaking all risks and responsibility for whatever may happen in connection with the application. The producer and/or seller will not be considered responsible for any accident, loss or damage (immediate or consequent) originating from the use and/or the inability to use the concerned product. Albesiano Sisa Vernici srl reserves the right to change or modify at any time and without any notice the technical specifications of the product described in this data sheet.

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