



- TECHNICAL DATA SHEET -

DOLPHON CC-1080-L Polyester resin

DESCRIPTION

DOLPHON CC-1080-L is a 100% solids polyester resin specially formulated for use on power tools, automotive and appliance armatures, and electric motor stators. The low viscosity of DOLPHON CC-1080-L insures thorough penetration of fine wire sizes using conventional processing techniques. Here are some features of this outstanding resin:

- Very fast curing cycles.
- Good bond strength at elevated temperatures.
- Good impregnation of fine wire size.
- No solvent contained – non-bubbling, maximum filling.
- U.L. recognized varnish, included in 180 °C insulating systems.
- Low viscosity, good storage stability.

CHARACTERISTICS

Physical properties

Viscosity in Demmler Cup n.1 at 30 °C	45-55 sec.
Viscosity in Ford Cup N.4 at 25°C	42-52 sec.
Gel time at 100°C (with 1% REACTOR 198/D)	10-15 min.
Specific Gravity at 25°C	1100±20 gr/lt.

Mechanical properties

<u>Bond strength in pounds – helical coil method</u> (one coat cured 1 hour at 150°C)	at 25°C	at 180°C
Amide-imide	40,8	10,8
Polyester Amide-Imide	36,0	8,4
Polyvinyl Formal-Polyamide	20,8	4,1
Polyvinyl Formal	37,5	4,3
Polyimide	33,0	8,4

GENERAL PROPERTIES

Compatibility with magnet wire coatings

DOLPHON CC-1080-L Polyester Resin is compatible with the following magnet wire coatings:

Amide-Imide	Polyvinyl Formal	Polyimide
Polyester Amide-Imide	Polyvinyl Formal-Polyamide	

Heat life

DOLPHON CC-1080-L has a heat life of 20.000 hours at 190°C as determined by ASTM D-3251 (Twisted Pairs) using Polyester overcoated with Amide-Imide magnet wire.

RECOMMENDED USES

DOLPHON CC 1080-L is recommended for use on power tools, appliance and automotive armatures and electric motor stators where high bond strength and maximum filling are required.



APPLICATION

DOLPHON CC-1080-L can be applied by roll through, dip and trickle methods. Listed below are typical processing methods for armatures weighing approximately one pound (453 gr.).

ROLL THROUGH

1. Preheat armatures to 105-115°C
2. Roll horizontally the unit in catalyzed resin for 2 revolutions
3. Drain 1 minute
4. Bake for 30 minutes to a temperature of 150°C

TRICKLE

1. Preheat armatures to 120-130°C (the temperature must be measured on the units).
2. Trickle the catalyzed resin on the unit, keeping it in slow rotation . The trickling time may vary from 10 to 20" according to the unit size. In the meantime units must be kept at 120-130 °C by means of infra-red lamps, so that the resin can cure after filling the winding and the slots.
3. Bake for 30 minutes at 130-135°C.

The cycle we described above can usually be accomplished for small productions; however there are machines running automatically the cycle, in which the heating is effected by induction with infra-red lamps or with electric resistances.

RESIN PREPARATION AND MAINTENANCE

Addition of catalyst

DOLPHON CC-1080-L Polyester Resin must be catalyzed to achieve a cure. Reactor 198/D is the recommended catalyst, in the percentage of 1% by weight. Mix thoroughly the two components in order to obtain a perfect dispersion of the reactor into the resin. The catalyzed resin remains stable for almost 7-8 days at a temperature of 20°C, afterwards the viscosity gradually increases up to gelation.

Tank storage and stability

Shelf life of uncatalyzed DOLPHON CC-1080-L is 12 months at room temperature (max 30°C). Shelf life can be extended indefinitely by adjusting the gel time. The gel time should be kept between 10 and 15 minutes.

Handling and storage of catalyst

- Store in cool place in original closed containers.
- Protect from direct sunlight .
- Keep away from heat, sparks open flame and direct sunlight.

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 user 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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