



- TECHNICAL DATA SHEET -

DOLPHON CC-1024-A

DESCRIPTION

DOLPHON CC-1024-A is a clear, unfilled, medium viscosity, modified epoxy resin suitable for impregnating, casting and potting coils, transformers and electronic components. It can also be used on trickling machines.

It has the following outstanding features:

- Pale amber color;
- Good electrical properties;
- Very good resistance to low temperature cycling;
- Excellent chemical and water resistance;
- Room temperature or oven curing.

CHARACTERISTICS

Physical Properties

Specific Gravity at 25°C	1.160±50 gr./lt.
Viscosity in Ford Cup n.8 at 25°C	45-80"
Viscosity Brookfield RVT/25°C/Sp.2/Rpm.10	2000-3000 cps
Tensile strength p.s.i. (ASTM D-638)	9.000
Compressive strength, p.s.i. (ASTM D-695)	18.000
Flexural strength, p.s.i. (ASTM D-790)	15.000
Impact strength, (ft.lbs./in.)	0,39
Elongation at break (ASTM D-638)	2,3%
Thermal conductivity (cal/sec/cm ² /°C./cm)	4,0x10 ⁻⁴
Water absorption, % (ASTM D-570)	0,12%
Coefficient of linear Thermal Expansion in/in/°C.(ASTM D-696)	6,48x10 ⁻⁵
Hardness Shore "D"	75

Electrical properties

Dielectric Strength (ASTM D-149) 1/8" section	500 Volts/mm.0,025
Surface resistivity (ohms)	5,7x10 ¹²
Volume resistivity (ohm-cm)	8,0x10 ¹³
Dielectric Constant (ASTM D-150) - 60 cycles	4,11
Dielectric Constant (ASTM D-150) - 10 ⁶ cycles	3,8
Power Factor (ASTM D-150) - 60 cycles	0,002
Power Factor (ASTM D-150) - 10 ⁶ cycles	0,02

The physical and electrical properties shown above refer to DOLPHON CC-1024-A cured at room temperature with Reactor RE-2000. These properties will slightly vary when CC-1024-A is cured with other Reactors.



APPLICATION

Preparation of the unit for CC-1024-A

1. Clean the mould and spray or coat it with mold release.
2. Preheat the unit in its mould to 110-120°C for 3 hours to insure the removal of moisture and cure any thermosetting materials.

Mixing

It is important that the mixture be homogeneous.

Mix the resin and the reactor slowly, to avoid air entrapping. Scrape sides and bottom of the container to assure that the mixture be homogeneous.

The method of cure and the desired flexibility of the cured epoxy may be obtained by using one of the Reactors from the following chart in the given ratio:

	Reactor	Parts of reactor to 100 parts of resin	Viscosity at 25°C	Thermal Class	Hardness at 20°C Shore D (after 168 h)	Pot Life at 20°C (100gr.)
Room Temperature	RE-2000	10	1500cps	B	75	60 min.
Room Temperature	RE-2001	60	2000cps	B	65	90 min.
Room Temperature	400-D	50	1200cps	B	75	30 min.
Oven	RE 2008	100	900cps	F	60	7 days

- Room Temperature cycle:

1. Cool unit to 40-50°C.
2. Slowly pour the resin along the side or edge of the mold being careful not to entrap air.

- Elevated temperature cycle:

1. Heat the mixture CC-1024/A and RE 2008 to 65°C.
2. Cool the unit to 90-95°C.
3. Slowly pour the hot mixture inside the mould.

If penetration in fine wires or in thick coils is required, a vacuum impregnation cycle is recommended.



Cure

- Room Temperature cycle:

Reactor	Gelification time	Hardness time
RE-2000 RE-2001 400-D	2 – 4 hours at 20°C	24 hours at 20°C

Dolphon CC 1024-A gels in 2-4h. at 20°C and cures firm and tack-free in 24h. at 20°C, but may not reach ultimate hardness for several days. Typical hardness after 7 days is given. The curing time may be accelerated by means of a short baking cycle at low temperature (60-65 °C).

- Elevated temperature cycle:

Reactor RE-2008	8 – 12 hours at 110°C	5 – 8 hours at 120°C	3 – 5 hours at 135°C
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(Time must taken after the unit reaches the baking temperature).

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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