



- TECHNICAL DATA SHEET -

## DOLPHON CB-1109/785-D

### TWO PART FLEXIBLE POLYBUTADIENE RESIN

#### DESCRIPTION

DOLPHON CB-1109/785-D is a unique, flexible resin. An alternative to silicone, urethane and epoxy resins, it can be used for potting, casting and coating electrical and electronic device applications where flexibility is required.

Some of the advantages of DOLPHON CB-1109/785-D are:

- Flexibility
- Thermal shock resistance - passes over 30 cycles (Oliphant washer test);
- Hydrolytically stable;
- Very low moisture vapour transmission;
- Excellent electrical properties - minimal change throughout temperature range;
- Repairable;
- Very low shrinkage, even when aged at temperatures up to 120°C;
- Easy mix and pour (hand or automatic dispensing);
- Room temperature cure (thick sections or thin layers) - can be used as stress relief layer;
- Low viscosity;
- Excellent chemical and abrasion resistance - resist degreaser solvent;
- Low exothermal reaction.

#### Recommended uses

Modules	Coils	Amplifiers	Ground fault interrupters
Sensors	Ferrite cores	Power supplies	Connectors
Splice filling	cable repair	Motors	Junction boxes
Relays	Transformers	Complete electronic assemblies	

#### CHARACTERISTICS

##### Specification

	CB-1109/785-D	RE 2018-4	MIXED
Colour	Black	Dark Amber	Black
Specific gravity at 25°C	1100±30gr/lit.	1090±30gr/lit.	1090±30gr./lit.
Viscosity Brookfield RVT/25°C/Sp.3/Rpm 10	4500-8500 mPa.s	100-150 mPa.s	2000-3000 mPa.s
Cure time/25°C			24 hours
Gel Time /25°C/120 grams mix			20-30 min
Gel Time /70°C/120 grams mix			14-19 min
Mix ratio (weight)	100	15	
Mix ratio (volume)	100	15	



## Physical Properties

Hardness, Shore "A" after 24 h at 25°C	35-45
Coefficient of Linear thermal Expansion (ASTM D3386)	235 $\mu\text{m}/\text{m}^\circ\text{C}$
Tensile strength (ISO R 527)	6-7 MPa
Elongation at break (ISO R 527)	200%
Linear Shrinkage (after curing 48 hours at 120°C)	0,02%
Thermal shock resistance - (Oliphant washer test)	passes 30 cycles -40 +155°C
Low temperature flexibility	-40
Thermal conductivity	0,40-0,42 W/mK
Glass transition temperature (DSC)	< -50°C

## Electrical Properties

Dielectric Constant/25°C /50Hz (ASTM D 150)	3,55
Dissipation Factor/25°C/50Hz (ASTM D 150)	0,025
Dielectric Strength (ASTM D-149)	700 volts/25 $\mu$
Surface resistivity (ohms) ASTM D-257	> $10^{15}$
Volume resistivity (ohms/cm) ASTM D257	> $10^{15}$

## APPLICATION

DOLPHON CB-1109/785-D can be easily mixed and poured by hand or by means of automatic machines.

The mix ratio is 100 parts of resin to 15 parts of reactor RE-2018-4, by weight. The mixing of resin and reactor must be made carefully and slowly to avoid air incorporation. Stir thoroughly to insure an homogeneous mixture, scraping sides and bottom of the container. The resin mixture may be de-aerated to obtain a void free casting, and for maximum penetration a vacuum cycle can be used. All metal parts must be clean and free of grease to insure good adhesion.

## Curing process

DOLPHON CB-1109/785-D will set up in 2-4 hours at 20°C, and cures completely in 24 hours. For faster final cure, CB-1109/785-D can be post-cured at 65°C for 4 hours after initial cure.

## Storage

Store in a cool place. Protect the resin and the reactor from excessive moisture. The shelf-life of Dolphon CB-1109/785-D is 12 months at 30°C max.; the one of the reactor RE-2018-4 is 12 months at 30°C max.

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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