

Product Information

Casting

Resin EP 510

FEATURES

- Colorless
- Not yellowing
- Slow reaction

COMPOSITION

- Part A: epoxy resin EP510
- Part B: Amine hardener H510



EP 510 is a transparent, colorless, non-yellowing epoxy casting resin; combined with the hardener H510 it shows a very low reaction speed, which allows the complete escape of air bubbles. Suitable for mass casting up to 80-100 mm thick.

APPLICATIONS

- Designed to make tables, sculptures, design items, embedding.

TYPICAL PROPERTIES

Specifications writers: These values are not intended for use in preparing specifications. Please contact your local sales representative prior to writing specifications on this product.

Property	Unit	Value
Colour (Resin A/Hardener B)	visual	Colorless / Colorless
Density at 23°C (Resin A/Hardener B)	g/cm ³	1.14 / 0.97
Viscosity at 23°C (Resin A/Hardener B)	mPa.s	2200 / 90
Colour (Mixture)	visual	Colorless
Density at 23°C (Mixture)	g/cm ³	1.10
Mixing ratio	pbw	100 : 35
Pot life at 23°C (150g)	hours	24
Gel time at 23°C (150g)	hours	48
Demoulding	days	3
Full cure	days	7
Hardness	Shore D	80
Tensile strength	MPa	55
Deformation at break	%	9.4
Flexural modulus	MPa	1870
Flexural strength	MPa	68
Compressive strength	MPa	26.4
Tg	°C	45
Tg (with post curing)	°C	57
Linear shrinkage	%	<0.1

SETTINGS

We recommend to re-homogenize the products in the container before use. Weight the two components and stir thoroughly until mixing is complete. Epoxy resins can crystallize at low temperature. To bring them back to their original condition heating at 40°C-50°C avoiding local overheating, then cool to room temperature. The substrate must be dry, free of dust. In the case of woods

with high humidity, properly insulate them with sealers or a suitable product.

MIXING

Mix resin and hardener in the proportions indicate until a homogeneous compound is obtained. Both components must be mixed intimately paying attention to the material on the edges of the container and not to incorporate too much air. Use

a low speed mixer. The long curing time allows the automatic and complete expulsion of air bubbles. It is possible to pour in several layers, pouring the next layer when the previous one has solidified, but not completely cured.

POTLIFE AND GELTIME

When the two components are thoroughly mixed in the right mixing ratio the reaction starts. The pot life, or usable time of the mixture, is normally the time required for an increase equal to twice the initial viscosity. Both Pot-life and Gel-time are depending on the mass and temperature: greater the mass, faster the reaction, greater the thickness, faster the reaction. Higher the temperature, faster the reaction.

CURING

The system cures at room temperature. Do not apply at temperatures below 20°C.

HANDLING PRECAUTIONS

The information for a correct and safe handling of the products are contained in the safety data sheet. Consult the safety data sheets before use for complete information on the risks for health and environment and for suitable protective devices to be adopted. Share the safety data sheets with all the staff involved in the use of the products.

PACKAGING

EP510 is supplied in 200 and 20kg containers, H510 in 24 and 3,5kg containers.

USABLE LIFE - STORAGE

Resin and hardeners must be stored in the original unopened containers at a temperature between +10°C and +35°C. Be sure to close the containers after use. Resin and hardeners, if stored under certain conditions, have a shelf life of 24 months from the date of manufacture.

LIMITATIONS

This product is neither tested nor represented as suitable for food contact, skin contact or medical uses.

LIMITED WARRANTY

The information contained in this document is offered in good faith based on Chemix research and is believed to be accurate. However, as the conditions and methods of use of our products are beyond our control, this information should not be used as a substitute for the tests that customers must first perform to ensure that Chemix products are fully satisfactory for their specific applications. The warranty is only applicable to the values indicated in the Product Sales Specifications. The sole and exclusive compensation for products with values that are out of specification is limited to the replacement of the product or the refund of the purchase price.

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