

# EPLAM 85

## Hand-lay-up Epoxy Resin

### DESCRIPTION

EPLAM 85 is a general purpose hand-lay-up epoxy resin for the production of fiber-reinforced laminates, surface coat and concrete back-up with the addition of fillers.

### CHARACTERITIC

- Appropriate pot-life
- Low viscosity
- Easy to use
- Good wettability of fibers

### PHYSICAL PROPERTY

| Test Item                            | Test method   | EPLAM 85 Resin | EPLAM 85 Hardener |
|--------------------------------------|---------------|----------------|-------------------|
| Mixing ratio by weight               |               | 100            | 24                |
| Aspect                               | visual        | liquid         | liquid            |
| Color                                | visual        | Light amber    | Light brown       |
| Viscosity at 25°C (mPa.s)            | ISO 2555:2018 | 2500-3500      | 20-30             |
| Density at 25°C (g/cm <sup>3</sup> ) | ISO 1675:1985 | 1.15           | 0.94              |
| Mixing viscosity at 25°C (mPa.s)     | ISO 2555:2018 |                | 480-600           |
| Pot-life at 25°C on 125g (min)       | Gel Timer     |                | 45-65             |

### Mechanical properties

| Prooerties                         | Test method                              | EPLAM 85   |
|------------------------------------|------------------------------------------|------------|
| Shore Hardness                     | ISO 868:1985                             | 85D        |
| Flexural strength                  | ISO 178:2001                             | 80-100MPa  |
| Flexural modulus                   | ISO 178:2001                             | 2.5-3.0GPa |
| Glass transition Temperature       | ISO 11357:2002                           | >75°C      |
| Gelation time at 23°C on laminate  | 5 plie /glass fabric 290g/m <sup>2</sup> | >70min     |
| Demolding time at 23°C on laminate | 5 plies/glass fabric 290g/m <sup>2</sup> | 20-24hour  |

\*Average values obtained on standard specimens/ Hardening 8h at 25°C + 12h at 80°C

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## PROCESSING

For the laminating:

Choose the adopted hardener according to the dimension and complexity of the application, mix it with resin homogenously and then impregnate the fiber reinforcement by appropriate method.

For gel coat:

After mixing RESIN and HARDENER, add the fillers to obtain a gel. Apply with a brush on a mould prepared (polished wax).

For concrete back-up:

Weight the resin and hardener according to the mixing ratio and mix them to get a homogenous liquid, then mix with the related fillers depends on application (aluminum, sand or other fillers).

Tamp down this concrete onto the laminate.

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## PACKAGE

| EPLAM 85 Resin | EPLAM 86 Hardener |
|----------------|-------------------|
| 1000 kg        | 900 kg            |
| 220 kg         | 180 kg            |
| 20 kg          | 4.8 kg            |

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## STORAGE

While stored in dry place and in original unopened containers at temperature between 15°C and 25°C, the shelf of resin is 24 months and the shelf life of hardener is 12 months. Exposure to low temperature for longer time might cause crystallization. In case crystallization occurs, heat it up to 50-60°C until it becomes to transparent liquid. Heating the product will not have any defective effect on the property of the product.

Any open can must be tightly closed under dry air or nitrogen blanket. The remaining product should be used up as soon as possible.

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## PRECAUTION

Avoid contact with skin while in application, wear mask, gloves and protection close when necessary; used in well ventilated area.

For further information, please consult product safety data sheet.

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## WARRANTY INFORMATION

*The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective and fully satisfactory for the intended end use.*