

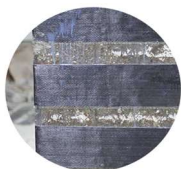
# EP 1401

## FEATURES

- Low temperature curing
- Curing in the presence of humidity
- Low viscosity
- Waterproof

## COMPOSITION

- Part A: epoxy resin EP1401
- Part B: hardener H1401



Two-part low viscosity epoxy system designed for use as a primer, sealer and adhesive for CFRP. After mixing the components, a compound is obtained that is easily applicable even at low temperatures and in the presence of humidity.

## APPLICATIONS

- Structural reinforcement of pillars, beams, arches and other reinforced concrete works.

## 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.

Properties	Unit	Value
Aspect Part A/Part B	Visual	Liquid / liquid
Color Part A/Part B	Visual	Straw / Brown
Density at 23°C Part A/Part B	g/cm <sup>3</sup>	1.175 / 0.998
Viscosity at 23°C Part A/Part B	mPa.s	3560 / 60
Mix ratio Part A/Part B	pbw	100 : 42
Mix ratio Part A/Part B	pbv	100 : 50
Gel time (100g at 23°C)	Minutes	30
Onset [DSC]	°C	65,6
Peak [DSC]	°C	103,1
Curing at 23°C	hours	12 – 18
Full cure at 23°C	days	5
Hardness	Shore D	70
Flexural modulus	MPa	3270
Flexural strength	MPa	122
Tensile strength	MPa	75
Elongation at break	%	13.0
Compressive modulus	MPa	1900
Compressive strength	MPa	90
Adhesion on concrete	MPa	3 (cls rupture)
Glass transition (DSC)	°C	72

## SETTINGS

Homogenize the components before use. The support to be treated must be healthy, cohesive, resistant and possibly dry.

## MIXING

Weigh resin and hardener in the indicated ratio and mix until a homogeneous compound is obtained.

**Warning!** Epoxy resins and amines can generate a highly exothermic, uncontrolled reaction, with decomposition above 250°C. Prepare limited quantities of material and proceed with application.

## POTLIFE E GELTIME

The Potlife or time of use of the mixture is normally the time required for an increase equal to twice the initial

viscosity. Both Pot-life and Gel-time depend on mass and temperature: the greater the mass, the faster the reaction will be. The higher the temperature, the faster the reaction.

## USE

### PRIMER

Apply the compound in quantities  $> 300 \text{ g/m}^2$  using a short-haired roller, then wait about 1 hour, but no more than 3 hours, before proceeding with the next operation. Repeat the application until a homogeneous surface layer is obtained.

### IMPREGNANT / ADHESIVE

In combination with carbon tapes, apply in quantities  $> 600 \text{ g/m}^2$  with a short-haired roller. On the still fresh layer of resin, spread and flatten the fabric using a bubble-breaker roller. Roll in the direction of the fibers exerting a slight pressure, being careful not to move the fabric. Proceed until the resin emerges between the fibers and impregnates them completely. Eliminate the air bubbles trapped between the fabric and the support. Repeat the application for the required number of layers, always working fresh on fresh. Do not apply at temperatures below  $+7^\circ\text{C}$  and with high humidity.

## 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.

## USABLE LIFE - STORAGE

Store in the original, unopened containers at a temperature between  $+15^\circ\text{C}$  and  $+35^\circ\text{C}$ . Epoxy resins have a pronounced tendency to crystallize at temperatures below  $25^\circ\text{C}$ . Hardeners are sensitive to moisture: be sure to close containers after use. This material, when stored under the specified conditions, has 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

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[www.chemix.it](http://www.chemix.it)

Chemix Srl Via Berlinguer 8, 21010 Golasecca (Italy). Phone +39(0)331959373 [info@chemix.it](mailto:info@chemix.it)

