

Mapewood Primer 100

**Fluid epoxy primer
in water dispersion
for consolidating
and priming timber
structures**

WHERE TO USE

Consolidation of timber structural elements damaged by decay wood-rotting fungi or due to the attack of wood-eating insects.

Priming the end-parts of structural elements in high density wood (oak and chestnut) that need to be reconstructed by bonding a new wood element.

Some application examples

- Consolidating damaged parts of timber (fir, pine, poplar, oak, chestnut and other species) beams, trusses and columns due to biological attack.
- Priming parts in high density timber (oak and chestnut) beams, trusses and columns that need to be reconstructed by bonding a new wood element using **Mapewood Gel 120** or **Mapewood Paste 140**.

TECHNICAL CHARACTERISTICS

Mapewood Primer 100 is an epoxy primer in water dispersion composed of two pre-measured parts that must be mixed before use (Part A = resin and Part B = hardener), prepared according to a formula developed in the Mapei research laboratories.

Due to **Mapewood Primer 100**'s low viscosity, once mixed it can impregnate and penetrate in depth into all types of porous wooden surfaces, improving cohesion and resistance to biological attack.

Used on low absorbency surfaces such as oak or chestnut, **Mapewood Primer 100** improves the bonding of **Mapewood Gel 120** and **Mapewood Paste 140**.

RECOMMENDATIONS

- Do not prime with **Mapewood Primer 100** at temperatures below +10°C.

- Do not apply **Mapewood Primer 100** on wet surfaces.

APPLICATION PROCEDURE

Preparing the substrate

- *Timber elements structurally repairable by priming*
The timber surfaces must be perfectly clean and dry before consolidating with **Mapewood Primer 100**. Remove any paint with suitable products or using a scraper or by sanding.

- *Heavily damaged wooden elements that need to be repaired with a new wood element*

If deep structural damages and serious alterations due to biological attack also in unseen or inaccessible parts should emerge after visual or instrumental diagnosis, secure the structure and remove the decayed part of the beam, column or truss with a clean cut.

Prepare the new wood element. Choose a type of wood of corresponding nature to the existing one and possibly with a better durability than the one that needs consolidating.

Drill a hole with an appropriate diameter and depth both in the middle of the headpiece of the damaged element and in the new wood element in order to insert a reinforcing rod or plate that can ensure a good structural connection.

An insert can be created as an alternative to the hole by cutting the easiest accessible side (only when **Mapewood Paste 140** is used to anchor the new wood element).

When sawing and drilling try to avoid splinters, superficial burns and the creation of areas with broken or flattened fibres.

In order to avoid the above mentioned it is recommended to adopt the following measures:

- always use sharpened sawing tools of the correct size and form (never use steel or cement blades, noses or cutters);



Mapewood Primer 100



The structural element before applying Mapewood Primer 100



Application phase of Mapewood Primer 100



Applying Mapewood Primer 100 with a small bottle brush

- use suitable supports and guides so the tools do not deviate when the blade hits knots or cross grains;
- remove shavings frequently in order to prevent them from pressing onto the surfaces and provoking friction and overheating;
- after the sawing stage, clean the surfaces from dust, shavings and splinters.

Note: Preferably prepare the wood surfaces within 24 hours prior to applying **Mapewood Primer 100**. This is to avoid superficial oxidation, contact with pollutants and dust deposits. Wait at least 5 hours at +20°C before repairing the damaged element with **Mapewood Gel 120** or **Mapewood Paste 140**. The damaged parts of the elements must be acclimatised before treating with **Mapewood Primer 100**.

It is absolutely necessary that the moisture content of the damaged element and the new wood element be $\pm 3\%$ with respect to that of equilibrium in the service condition in order to minimise the dimensional variations and consequent tension development between the parts that need to be bonded with **Mapewood Gel 120** or **Mapewood Paste 140**.

Preparing the product

The two parts of **Mapewood Primer 100** must be mixed together. Pour Part B into Part A and mix with a drill fitted with a whip until the resin is completely smooth.

Mixing ratio: 1 part by weight Part A and 1 part by weight Part B.

In order to avoid accidental measuring errors, use the whole package of the product. If partial quantities are necessary, use an electronic precision scale.

Applying the product

- Timber elements structurally repairable through priming

Apply **Mapewood Primer 100** on the timber element with a roller or a brush. For good consolidation, the element must be completely saturated with the product and several coats must be applied. Due to the hardened **Mapewood Primer 100**'s excellent aggregating properties, it can restore the cohesion of the impregnated parts of the treated element.

- Heavily damaged timber elements that need a new wood element

Apply, possibly with a brush in a single coat, **Mapewood Primer 100** on the wood surfaces. If there are holes, apply the product with a small bottle brush. Apply a second coat after the first has absorbed completely if the surface is very absorbent (e.g. fir or poplar). In this case **Mapewood Primer 100** improves the bonding of **Mapewood Gel 120** and **Mapewood Paste 140**, epoxy based structural adhesives especially for anchoring metal connecting rods between old and new timber elements. Once prepared, **Mapewood Primer 100** is workable for approximately 40 minutes at +23°C. **Mapewood Primer 100** must be used within its pot life.

Precautions to be observed before application

No particular precaution is necessary at temperatures between +10°C and +30°C. During summer do not expose the product in the sun and prime during the cool hours of the day to avoid rapid hardening making the product difficult to apply.

During the winter, it is recommended to heat the wooden elements 24 hours before applying **Mapewood Primer 100** and protect from frost. This is especially recommended for exterior applications at temperatures below +10°C. Store the product in a warm place.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Mapewood Primer 100 Part A is irritant in direct contact with the eyes and skin. Part B contains a strongly caustic and harmful substance. Following repeated and prolonged contact, sensitivity could occur. Avoid any contact with the skin and eyes by always wearing protective gloves and goggles both during the mixing of the two parts and the application of the product. If in contact with the skin, wash with plenty of water and soap. If there should be any signs of sensitivity, consult a doctor. In case of contact with the eyes, wash with running water and consult a doctor. Use in ventilated areas.

Cleaning

Due to **Mapewood Primer 100**'s high adhesive strength also onto metal, it is recommended to wash working tools with water before the product hardens.

CONSUMPTION

Approximately 150 g/m².

PACKAGING

1 kg units (Part A = 0.5 kg and Part B = 0.5 kg).

5 kg units (Part A = 2.5 kg and Part B = 2.5 kg).

STORAGE

The product must be stored in its original packing at a temperature not below +10°C.

FOR PROFESSIONALS.

WARNING

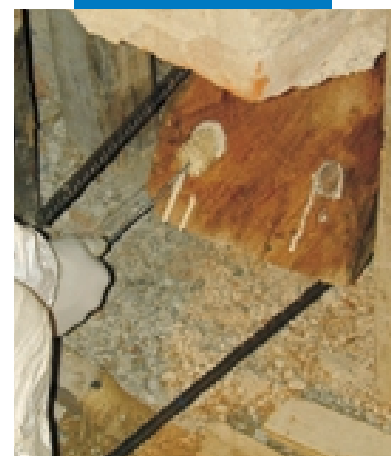
Although the technical details and recommendations contained in this product report correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical applications: for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application: in every case, the user alone is fully responsible for any consequences deriving from the use of the product.

All relevant references of the product are available upon request

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Customs class:	3907 30 00	
	Part A	Part B
Consistency:	liquid	liquid
Colour:	straw yellow	amber
Specific gravity (g/cm³):	1.11	1.01
Brookfield viscosity (mPa·s):	1000 (shaft 1 - rev. 5)	80 (shaft 1 - rev. 10)
Storage:	24 months in original unopened packing at a temperature between +5°C and +30°C	
Hazard classification according to EC 99/45:	irritant	harmful
	Before use consult the "Safety instructions" paragraph and the information on the packaging and safety data sheet.	
Mixing ratio:	Part A : Part B = 1 : 1	
Consistency of the mix:	liquid	
Colour of the mix:	straw yellow	
Specific gravity of the mix (g/cm³):	1.08	
Brookfield viscosity of the mix (mPa·s):	700 (shaft 2 - rev. 10)	
Workability at +23°C:	30'-40'	
Application temperature range:	from +10°C to +30°C	
Complete hardening:	12-24 hours	



Applying Mapewood Primer 100 with a small bottle brush

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