

MAPEFLOOR JA FAST

Two-component thixotropic epoxy adhesive, with rapid hardening, for installing Mapejoint prefabricated polymer jointing profiles and for carrying out small repairs and grouting on concrete surfaces



DESCRIPTION

Mapefloor JA Fast is a two-component thixotropic epoxy adhesive with rapid hardening, based on epoxy resins, selected aggregates and special additives, developed in the MAPEI Research & Development Laboratories.

Mapefloor JA Fast is particularly recommended as an adhesive for bonding **Mapejoint** prefabricated polymer jointing profiles from the **Mapejoint** range.

It may also be used for structural bonding and reinforcement of concrete elements as well as for repairing and grouting cracks, holes and surface irregularities on concrete, natural stone or other cementitious surfaces before laying resin coatings from the **Mapefloor** range or cementitious coatings from **Ultratop** range.

TECHNICAL CHARACTERISTICS

- Rapid curing (approximately 1 hour at +23°C), allowing quick use of treated surfaces even at low environmental temperatures. Particularly suitable for applications carried out at temperatures between +5°C and +23°C.
- Thixotropic consistency, allowing easy application even on vertical surfaces in layers up to 1 cm thick in a single coat.
- Low viscosity and good ability to flow during the installation of prefabricated polymeric joints from the **Mapejoint** range.
- Can also be applied on damp, matt surfaces.

Mapefloor JA Fast complies with the principles defined in EN 1504-9 (*"Products and systems for the protection and repair of concrete structures: definitions, requirements, quality control and evaluation of conformity. General principles for use of products and systems"*), and the minimum requirements of EN 1504-4 (*"Structural Bonding"*).

ADVANTAGES

- Provides high adhesion to various types of substrates such as concrete and cementitious surfaces.
- Thanks to its excellent wetting properties, it ensures uniform adhesion even on irregular surfaces.
- Rapid curing, reducing working times and allowing early use even at low environmental temperatures.
- Versatile: can be used both for bonding and structural reinforcement of concrete elements, and for repairing and grouting cracks and irregularities before applying resin or cementitious coatings.
- High mechanical strength ensuring long-lasting performance.
- Suitable for applications on slightly damp substrates, facilitating earlier installation operations.

WHERE TO USE

- Bonding and installing **Mapejoint (Mapejoint 100/25 and Mapejoint 100/12)**.
- Repairing and grouting holes, cracks and uneven areas, including large areas, in industrial floors.
- Bonding of dollies for the pull-out tests.
- Rigid structural bonding of prefabricated concrete elements.
- Bonding of steel plate to structural reinforcement of concrete beams and pillars.

RECOMMENDATIONS

- Do not use **Mapefloor JA Fast** for filling dynamic joints.
- Do not dilute **Mapefloor JA Fast** with solvent or water.
- Do not apply **Mapefloor JA Fast** on dusty, weak or contaminated substrates (oil, grease or dirt).
- Do not mix partial quantities of the two components.
- Do not expose the mixed product to sources of heat.

APPLICATION PROCEDURE

Preparation of the material and substrate to be bonded

When installing **Mapejoint**, carefully remove any crumbling areas and dust from the surfaces of the seat where the prefabricated joint is to be bonded. The surface of the **Mapejoint** must be dry and clean before applying **Mapefloor JA**.

When bonding concrete and in the case of structural bonds, the surfaces must be dry, perfectly clean, have no traces of dust or any area of crumbling or detached material. It is recommended to clean and prepare these types of surfaces by sandblasting.

Cementitious and concrete substrates must be cured for at least 28 days to reduce shrinkage stresses generated at the adhesive-substrate interface.

The substrate can be damp-matt.

Remove any dust or crumbling areas with a vacuum cleaner.

The thixotropic consistency of the product allows it to be applied on vertical surfaces and ceilings.

Metal surfaces should be cleaned preferably by sandblasting down to a bare metal finish (SA 2½), to remove all traces of rust, paint, dirt and oil.

Note: *Mapefloor JA Fast is a rapid product and must be applied within the pot life indicated in the table so it is good practice to organize work so that it can be completed within the specified time limit.*

Preparation of the product

Pour component B (white), into component A (grey), and blend them together with a low-speed mixer fitted with a mixing attachment until completely blended (an even grey colour). Use the product within the pot life indicated in the table.

Application of the product

Installation of Mapejoint

Carefully remove crumbling areas and dust from the surfaces of the groove where the prefabricated joint is to be bonded. The surface of the **Mapejoint** on which **Mapefloor JA Fast** is to be applied must be clean. Insert **Mapefoam** cord of a suitable diameter at the centre of the groove in the joint to prevent the adhesive seeping into it. Place a masking tape to cover the cord. The masking tape will be then removed once the **Mapefloor JA Fast** is applied.

Apply **Mapefloor JA Fast** with a trowel along the bottom of the groove and spread it out evenly along the two sides of the joint to a depth of no more than 25 mm. For this operation, it is recommended to use a straight steel trowel with a blade that has been shaped to suit. Apply a layer of **Mapefloor JA Fast** adhesive with a notched trowel with 5 mm V-shaped teeth along the underside of the **Mapejoint** where the adhesive tape runs along the middle. The tape must not be removed and must be completely covered with **Mapefloor JA Fast**.

Bonding and strengthening

Mapefloor JA Fast may be applied on concrete, stone, brickwork and metal with a flat trowel. To obtain a good bond, it is recommended to spread the adhesive on both surfaces and to make sure it penetrates well into any areas with an irregular surface or shape. After spreading the adhesive, press the two parts firmly together until the adhesive has completely set. A layer around 1 to 2 mm thick is required to form a sound bond.

Repairing and grouting elements and features in concrete, stone, etc.

Apply **Mapefloor JA Fast** with trowel to completely fill the area to be repaired or reintegrated.

PRECAUTIONS TO BE TAKEN BEFORE APPLICATION

The temperature of application must be between +5°C and +23°C. No special precautions need to be taken at these temperatures, that must be kept for at least the next 24 hours.

In those cases where the surrounding temperature is higher than the recommended limit when applying the adhesive, it is recommended to work during the cooler part of the day and to store the product beforehand in a cool area away from direct sunlight for at least 24 hours.

If the adhesive needs to be applied when the temperature is less than +10°C, store it beforehand in area with a temperature at least +20°C for at least of 24 hours.

CLEANING TOOLS

Tools used to apply **Mapefloor JA Fast** may be cleaned with thinners (ethanol, toluene, etc.) while the product is still fresh. Once set the product must be removed mechanically.

CONSUMPTION

1.65-1.75 kg/m² per mm of thickness.

For bonding **Mapejoint 100/25**: 5-6 kg per metre of joint, depending on the irregularity of the substrate.

For bonding **Mapejoint 100/25**: 2.5-3 kg per metre of joint, depending on the irregularity of the substrate.

PACKAGING

6 kg kit (component A = 4.5 kg - component B = 1.5 kg).

STORAGE

24 months in its original sealed packaging in a covered, dry area with a temperature between +5°C and +30°C. Protect from frost.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com. When the product reacts, it generates considerable heat. After mixing components A and B we recommend applying the product as soon as possible and to never leave the container unguarded until it is completely empty.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

	component A	component B
Consistency:	Thixotropic paste	thixotropic paste
Colour:	grey	white
Density:	1.72 g/cm ³	1.50 g/cm ³
Brookfield viscosity :	700 Pa·s (rotor F - 5 rpm)	450 Pa·s (rotor D - 2.5 rpm)

APPLICATION DATA (at +23°C - 50% R.H.)

Mixing ratio:	component A : component B = 3 : 1
Consistency of mix:	thixotropic paste
Colour of mix:	grey
Density of mix:	1,700 kg/m ³
Brookfield viscosity (Pa·s):	550 Pa·s (rotor F – 5 rpm)
Workability time (EN ISO 9514):	
At +10°C:	20'
At +23°C:	10'
Setting time:	
At +10°C:	4 h
At +23°C:	1 h
Application temperature:	from +5°C to +23°C
Complete hardening time:	4 days

FINAL PERFORMANCE

Essential characteristic	Test Method	Requirements according to EN 1504-4	Typical values
Linear shrinkage:	EN 12617-1	≤ 0.1 %	0 % (at +23°C) 0 % (at +70°C)
Compressive modulus of elasticity:	EN 13412	≥ 2,000 N/mm ²	6,000 N/mm ²
Coefficient of thermal expansion:	EN 1770	≤ 100 x 10 ⁻⁶ K ⁻¹ (measured between -25°C and +60°C)	42 x 10 ⁻⁶ K ⁻¹
Glass transition temperature:	EN 12614	≥ +40°C	> +40°C
Durability (freeze/thaw and hot damp cycles):	EN 13733	Compressive shear load > tensile strength of concrete No failure of Steel test sample	meets specifications
Reaction to fire:	EN 13501-1	Euroclass	C-s2, d0 B _{FL} -s1
Adhesion to damp concrete according to EN 12636:	EN 1542	not required	> 3 N/mm ² (failure of concrete)
Adhesion of concrete-steel :	EN 1542	not required	> 3 N/mm ² (failure of concrete)

BONDED MORTAR OR CONCRETE

Adhesion to concrete:	EN 12636	failure of concrete	meets specifications
Sensitivity to water:	EN 12636	failure of concrete	meets specifications
Shear strength :	EN 12615	$\geq 6 \text{ N/mm}^2$	$> 10 \text{ N/mm}^2$
Compressive strength :	EN 12190	$\geq 30 \text{ N/mm}^2$	$> 70 \text{ N/mm}^2$
STRENGTHENING USING BONDED PLATE			
Shear strength:	EN 12188	$\geq 12 \text{ N/mm}^2$	50° $> 39 \text{ N/mm}^2$ 60° $> 34 \text{ N/mm}^2$ 70° $> 31 \text{ N/mm}^2$
Adherence: – pull-out	EN 12188	$\geq 14 \text{ N/mm}^2$	$> 18 \text{ N/mm}^2$
Adherence: – inclined shear strength	EN 12188	50° $\geq 50 \text{ N/mm}^2$ 60° $\geq 60 \text{ N/mm}^2$ 70° $\geq 70 \text{ N/mm}^2$	50° $> 80 \text{ N/mm}^2$ 60° $> 80 \text{ N/mm}^2$ 70° $> 98 \text{ N/mm}^2$

WARNING

Although the technical details and recommendations contained in this product data sheet 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 application; 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.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.com.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

TECHNICAL SPECIFICATION

Supply and application of two-component thixotropic epoxy adhesive with rapid curing (such as **Mapefloor JA Fast** by MAPEI S.p.A.), suitable for bonding prefabricated polymeric joints (such as **Mapejoint 100/25** or **Mapejoint 100/12** by MAPEI S.p.A.), and for small repairs on concrete, natural stone or other cementitious surfaces before applying resin coatings (such as the **Mapefloor** range by MAPEI S.p.A.) or cementitious coatings (such as **Ultratop** range by MAPEI S.p.A.). The product must comply with the minimum requirements of EN 1504-4.

The substrates to be treated must be sound, compact, perfectly clean and free from any loose or detached parts, dust, rust, oil, grease or other contaminants.

The hardened material must have the following characteristics:

Density of mix :	1.70 g/cm ³
Workability time: (at +23°C) (EN ISO 9514):	10'
Linear shrinkage: (EN 12617-1):	0 % (at +23°C) 0 % (at +70°C)
Compressive modulus of elasticity (EN 13412):	6,000 N/mm ²
Coefficient of thermal expansion (measured between -25°C and +60°C) (EN 1770):	42 x 10 ⁻⁶ K ⁻¹
Glass transition temperature (EN 12614):	> +40°C
Durability (freeze/thaw and hot damp cycles) (EN 13733)	
– compressive shear load > tensile strength of concrete:	meets specifications
– no failure of steel test sample:	meets specifications
Adhesion to damp concrete (EN 12636):	> 3 N/mm ² (failure of concrete)
Adhesion to concrete (failure of concrete) (EN 12636):	meets specifications
Sensitivity to water (failure of concrete) (EN 12636):	meets specifications
Shear strength	> 10 N/mm ²
– bonded mortar or concrete (EN 12615):	50° > 39 N/mm ² 60° > 34 N/mm ² 70° > 31 N/mm ²
– strengthening using bonded plate (EN 12188):	
Compressive strength (EN 12190):	> 70 N/mm ²
Adherence (EN 12188)	
– pull out:	> 18 N/mm ²
Adherence (EN 12188)	
– inclined shear strength:	50° > 80 N/mm ² 60° > 80 N/mm ² 70° > 98 N/mm ²
Reaction to fire (EN 13501-1):	C-s2, d0 B _{FL} - s1

Mapei S.p.A.

Via Cafiero, 22, 20158, Milano



+39-02-376731



www.mapei.com



mapei@mapei.it

8906-2-2026 en (IT)

Any reproduction of texts, photos and illustrations published here is prohibited and subject to prosecution

