

EPOJET

Two-component, solvent-free epoxy adhesive for construction joints and monolithic sealing of cracks in screeds



BENEFITS AND FEATURES

- Easy to use
- Suitable for injection and anchoring applications in concrete
- Optimal pot life
- Solvent-free
- low viscosity

WHERE TO USE

- Monolithic restoration of cracked load-bearing structures damaged by overloads, accidental impacts, or seismic events.
- Bonding and structural strengthening through low-pressure injection.
- Precision anchoring of metal structures.

Some application examples

- Structural repair of cracked beams, columns and floor slabs through low-pressure injection.
- Reinforcement of beams and floor slabs using the *béton plaqué* injection technique, in cases where the plates to be bonded have lateral folds, making direct use of **Adesilex PG1** or **Adesilex PG2** impossible.
- Restoration of watertightness in cracked tanks, reservoirs, or channels.
- Restoration by injection of façade elements, coverings, and detached architectural elements.
- Protective injection of post-tensioning cables.
- Structural consolidation and repair of cracked road, underground, civil, and industrial structures.
- Sealing of cracks in cementitious screeds.
- Consolidation and restoration of concrete structures damaged by earthquakes, settlements, or impacts through injection.
- Anchoring of metal structures and reinforcing bars.

TECHNICAL CHARACTERISTICS

Epojet is a solvent-free epoxy adhesive made of two pre-measured components (component A = resin and component B = hardener) that must be mixed together before use.

After mixing, **Epojet** becomes a low-viscosity liquid, making it ideal for injections.

Epojet, once hardened, is watertight.

Epojet exhibits excellent dielectric properties and high mechanical strength, while providing outstanding adhesion to both concrete and steel.

Epojet 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 the use of products and systems*"), and the minimum requirements of EN 1504-5 ("*Concrete injection*"), as well as the minimum requirements of EN 1504-6 ("*Anchoring of reinforcing steel bars*").

RECOMMENDATIONS

- Do not use **Epojet** if the temperature is lower than +5°C.
- Do not apply **Epojet** on wet surfaces.
- Do not apply **Epojet** on dusty, crumbling or weak substrates.
- Do not use **Epojet** for sealing expansion joints.

APPLICATION PROCEDURE

Preparation of the substrate

Before injecting the product, the concrete surface must be perfectly clean and sound.

Remove any crumbling loose parts and all traces of dust, cement laitance, and paint by sandblasting or brushing.

Concrete impregnated with oil or grease must be completely demolished.

Positioning the steel reinforcement and injection

Remove all traces of rust or grease from the reinforcement element by white metal blast cleaning (SA 2½) or, alternatively, by grinding; in the latter case, degrease the plate with solvents.

After completing these operations, position the steel plate on the concrete using expansion bolts, then attach the injection tubes with **Adesilex PG1** or **Adesilex PG2**.

Sealing cracks by injection

Drill a series of 8–9 mm diameter holes along the sides of the cracks, oriented to intersect the cracks.

Blow out the cavities with compressed air to remove all dust generated during drilling. Insert the appropriate injection tubes into the holes and seal the working surface **Adesilex PG1** or **Adesilex PG2**.

When drilling is not possible due to the very small size or extensive branching of the cracks, use flat-ended injectors positioned over the cracks and fixed to the concrete with expansion bolts or directly with **Adesilex PG1** or **Adesilex PG2**.

Wait until **Adesilex PG1** or **Adesilex PG2** has cured (minimum 12 hours), then inject compressed air to ensure the injection system is fully open.

Preparation of the product

The two components of **Epojet** must be mixed together. Pour Component B into Component A and mix manually with a trowel (for small batches) or with a low-speed drill fitted with a stirrer (for larger batches) until fully homogeneous, avoiding air entrapment.

Do not use partial quantities of the components to avoid dosage errors during mixing, as this may prevent **Epojet** from curing correctly. If the packages are to be used partially, a precision electronic scale must be used.

Application of the product

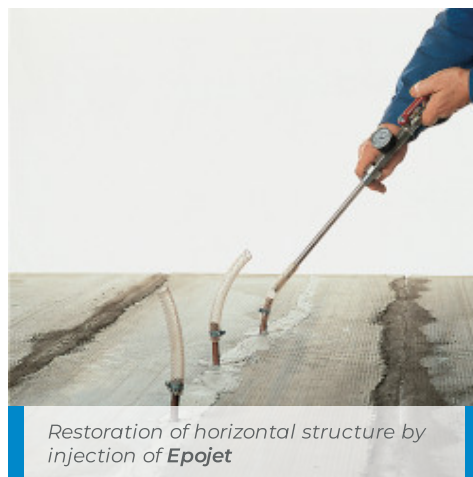
Immediately after preparation, inject **Epojet** using a suitable pump, starting from the lowest tube until the resin flows out of the next injector. Close the tube used for injection and continue injecting **Epojet** from the tube

directly above, until the crack is completely filled.

For horizontal cracks, sealing can be carried out by pouring **Epojet**.

Epojet must be applied within 40 minutes after preparation at a temperature of +23°C.

Avoid using **Epojet** when the outdoor and substrate temperatures are below +5°C.



CLEANING

Equipment used for the preparation and injection of **Epojet** must be cleaned immediately after use with solvents (e.g., ethyl alcohol, toluene) before the product hardens.

CONSUMPTION

- Crack sealing:
1.1 kg/l of cavity to be filled.
- Concrete-steel bonding:
1.1 kg/m² per mm of thickness.

PACKAGING

5 kg kit (component A = 4 kg + component B = 1 kg)

2.5 kg kit (component A = 2 kg + component B = 0.5 kg).

STORAGE

24 months in its original packaging. Store the product in an area with a temperature of at least +5°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

When the product reacts, it generates a high amount of heat. After mixing components A and B we recommend applying the product as soon as possible and never leaving the container unattended until it is completely empty.

Instructions for the safe use of our products can be found on the latest version of the SDS available from our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

	Component A	Component B
Consistency:	liquid	liquid
Colour:	transparent yellow	transparent yellow
Density:	1.15 kg/l	1.00 kg/l
Brookfield viscosity:	500 mPa·s (rotor 2 - 20 rpm)	320 mPa·s (rotor 2 - 20 rpm)

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

Mixing ratio:	component A : component B = 4 : 1
Consistency of mix:	fluid liquid
Colour of the mix:	transparent yellow
Density of the mix:	1.14 kg/l
Brookfield viscosity:	380 mPa·s (rotor 2 - 5 rpm)
Pot life:	
– at +23°C:	40 min
– at +30°C:	20 min
Setting time:	
– at +23°C:	4 hours
– at +30°C:	3 hours
Application temperature:	from +5°C to +30°C

Complete hardening time:

7 days

FINAL PERFORMANCE

Performance characteristic	Test method	Requirements according to EN 1504-5	Requirements according to EN 1504-6	Product performance	
Adhesion by tensile bond strength:	EN 12618-2	cohesive failure of the substrate	not required	meets specifications	
Adhesion by slant shear strength:	EN 12618-3	monolithic failure	not required	meets specifications	
Volumetric shrinkage:	EN 12617-2	< 3%	not required	1.9%	
Glass transition temperature:	EN 12614	≥ +40°C	≥ +45°C	≥ +45°C	
Injectability in dry and wet sand column:	EN 1771	Injectability class: - 0.1 mm slots: < 4 min - 0.2 and 0.3 mm cracks: < 8 min splitting test: > 7 N/mm ²	not required not required	dry 4 min 41 s 14 N/mm ²	wet 4 min 50 s 11 N/mm ²
Durability (freeze/thaw and wet/dry cycles):	EN 12618-2	cohesive failure of the substrate	not required	meets specifications	
Development of tensile strength at +5°C:	EN 1543	tensile strength > 3 N/mm ² at 72 h at minimum application temperature	not required	> 4.9 N/mm ²	
Creep – relative displacement under a 50 kN load for 3 months:	EN 1544	not required	≤ 0.6 mm	0.46 mm	
Pull-out strength of steel rebar – displacement under a 75 kN:	EN 1881	not required	≤ 0.6 mm	0.58 mm	
Compressive strength:	EN 12190	not required	> 80% of the 7-day value declared by the manufacturer	95 N/mm ² (after 7 days)	
Reaction to fire:	EN 13501-1	not required	Euroclass	E	

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.

The values declared in the TECHNICAL DATA table (typical values) were obtained in compliance with test methods and curing cycles defined in the technical standards referenced therein. Therefore, please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

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

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time of the MAPEI product installation.

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