



# Epojet SLV

**Two-component injectable epoxy resin with very low viscosity, including at low temperatures, for sealing cracks, including in wet substrates**

## WHERE TO USE

- Monolithic crack filling.
- Bonding steel plate to concrete (plate bonding technique) by low pressure injection.

## Some application examples

- Structural repairs to cracked beams, pillars and floor slabs by low pressure injection.
- By injection to strengthen beams and floor slabs using the plate bonding technique when the steel plates are folded along the edges and it is not possible to use **Adesilex PG1** or **Adesilex PG2**.
- Repairs to facades, coatings and detached architectural features by injection.
- Structural consolidation and repairs to roads and underground, civil and industrial structures and members with cracks.
- Sealing cracks in cementitious screeds.
- Injection into concrete structures to repair cracks caused by earthquakes, settling, impact damage, etc.

## TECHNICAL CHARACTERISTICS

**Epojet SLV** is an epoxy adhesive made up of two pre-dosed components (component A resin and component B catalyser) which must be mixed together prior to use.

After mixing, **Epojet SLV** has the consistency of very low viscosity liquid and has the capacity to penetrate easily into micro-cracks.

**Epojet SLV** hardens without shrinking, including on wet substrates, and once hardened it is impermeable to water and chemical agents in the surrounding atmosphere.

**Epojet SLV** has excellent dielectric properties and high mechanical strength and adheres perfectly to concrete and steel.

**Epojet SLV** complies with the principles defined in EN 1504-9 ("*Products and systems for protecting and repairing concrete structures: definitions, requirements, quality control and conformity assessment. General principles for the use of products and systems*"), and the minimum requirements of EN 1504-5 ("*Concrete injection*").

## RECOMMENDATIONS

- Do not use **Epojet SLV** if the temperature is lower than +10°C.
- Do not apply **Epojet SLV** on dusty, crumbling or weak substrates.
- Do not use **Epojet SLV** for sealing expansion joints.

## APPLICATION PROCEDURE

### Substrate preparation

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

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

Remove all concrete impregnated with oil or grease.

### Positioning the steel strengtheners and injecting the product

Remove all traces of rust and grease from the strengthening plates by sandblasting to a bare metal finish (grade SA 2½).

After cleaning the steel plates, fasten them in place with anchor bolts and fasten the injection tubes in place with **Adesilex PG1** or **Adesilex PG2** (the workability time of **Adesilex PG2** is longer than that of **Adesilex PG1**). Use the same product to seal the gaps between the concrete and the steel strengthening plates. When the **Adesilex PG1** or **Adesilex PG2** has hardened inject **Epojet SLV** through the injector tubes.

### Repairs to cracked concrete by injection

Drill a series of 8-9 mm holes along the sides of the cracks at an angle so they go through the cracks.

Carefully clean the area with compressed air to remove all traces of dust deposits formed during the drilling operation. Insert special injector tubes into the drilled holes and seal them with **Adesilex PG1** or **Adesilex PG2**.

If it is not possible to drill holes in the concrete because the cracks are too small or too widely distributed, use injectors with flat ends fastened in place over the cracks with anchor bolts or **Adesilex PG1** or **Adesilex PG2**.

Wait until the **Adesilex PG1** or **Adesilex PG2** has hardened (at least 12 hours) and inject compressed air to make sure the circuit is completely open.

### Preparation of the product

The two components which make up **Epojet SLV** must be mixed together. Pour component B into component A and mix with a drill at low-speed with a mixing attachment until the resin is completely blended; avoid entraining air into the product.

Do not use partial quantities of the components to avoid making dosage errors when mixing; **Epojet SLV** may not harden properly. If partial quantities are required, use precision electronic scales to weigh out the components.

### Application of the product

Inject the **Epojet SLV** with a suitable pump immediately after mixing starting from the

lowest tube until the resin comes out of the adjacent injector. Seal the lower tube used to inject the resin and then inject **Epojet SLV** into the next tube above until the crack is completely filled.

Fill horizontal cracks by simply pouring **Epojet SLV** directly into the crack.

Apply **Epojet SLV** within 25 minutes of being prepared at +23°C.

Do not use **Epojet SLV** if the outside temperature and the temperature of the substrate is lower than +10°C.

### Cleaning

**Epojet SLV** adheres very strongly and tools should be cleaned with solvent (such as ethanol, toluene, etc.) before it hardens.

### CONSUMPTION

- Sealing cracks:  
1.1 kg/l of cavities to be filled.
- Bonding concrete to steel:  
1.1 kg/m<sup>2</sup> per mm of thickness.

### PACKAGING

Available in 2.5 kg kits (component A = 2 kg - component B = 0.5 kg).

### STORAGE

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

### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Epojet SLV** component A irritates the skin and may cause damage to the eyes. Components A and B may cause sensitisation to those predisposed and are harmful if swallowed. **Epojet SLV** component B is corrosive and may cause burns and damage the eyes. The product contains low molecular weight epoxy resins that may cause sensitisation if cross-contamination occurs with other epoxy compounds. When applying the product it is recommended to use protective gloves and goggles and to take the usual precautions for handling chemicals. If the product comes in contact with the eyes or skin, wash immediately with plenty of water and seek medical attention. **Epojet SLV** components A and B are also hazardous for aquatic life. Do not dispose of these products in the environment. 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. For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT ONLY FOR PROFESSIONAL USE.

### WARNING

*Although the technical details and recommendations contained in this*

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

	component A	component B
<b>Consistency:</b>	liquid	liquid
<b>Colour:</b>	transparent yellow	transparent yellow
<b>Density (kg/l):</b>	1.14	0.91
<b>Brookfield viscosity (mPa·s):</b>	300 (rotor 2 - 50 rpm)	25 (rotor 1 - 50 rpm)

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

<b>Mixing ratio:</b>	component A : component B = 4 : 1
<b>Consistency of mix:</b>	highly fluid liquid
<b>Colour of mix:</b>	transparent yellow
<b>Density of mix (kg/l):</b>	1.10
<b>Brookfield viscosity (mPa·s):</b>	90 (rotor 1 - 50 rpm)
<b>Workability time (EN ISO 9514):</b> - at +23°C: - at +30°C:	25 minutes 15 minutes
<b>Setting time:</b> - at +23°C: - at +30°C:	7-8 hours 2-3 hours
<b>Application temperature range:</b>	from +10°C to +35°C
<b>Complete hardening time:</b>	7 days

### FINAL PERFORMANCE

Performance characteristic	Test method	Requirements according to EN 1504-5	Performance of product	
<b>Bond due to tensile strength:</b>	EN 12618-2	cohesive failure of substrate	meets specifications	
<b>Bond due to inclined shear strength:</b>	EN 12618-3	monolithic failure	meets specifications	
<b>Volumetric shrinkage (%):</b>	EN 12617-2	< 3	2.1	
<b>Glass transition temperature:</b>	EN 12614	> +40°C	> +40°C	
<b>Injection into a column of dry sand and into a column of damp sand:</b>	EN 1771	injection class: - 0.1 mm cracks: < 4 mins - 0.2 to 0.3 mm cracks: < 8 mins	dry 1 min 30 sec	damp 1 min
		indirect tension: > 7 N/mm <sup>2</sup>	13 N/mm <sup>2</sup>	12 N/mm <sup>2</sup>
<b>Durability (freeze/thaw cycles and wet/dry cycles):</b>	EN 12618-2	cohesive failure of substrate	meets specifications	
<b>Development of tensile strength at +10°C (N/mm<sup>2</sup>):</b>	EN 1543	tensile strength > 3 N/mm <sup>2</sup> after 72 hours at service temperature	> 3	
<b>Tensile strength (N/mm<sup>2</sup>):</b>	EN ISO 527	-	64	
<b>Tensile modulus of elasticity (N/mm<sup>2</sup>):</b>	EN ISO 527	-	3,000	
<b>Deformation at failure (%):</b>	EN ISO 527	-	3.0	
<b>Compressive strength (N/mm<sup>2</sup>):</b>	ASTM D 695	-	70	

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*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](http://www.mapei.com)**

**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**

