MAPEI

Epojet HV MY

Two component fluid epoxy resin for structural in-filling of cracks and gaps

WHERE TO USE
Monolithic sealing of cracked concrete sections by pressure injections and external reinforcement of concrete structures by steel-plate bonding.

Some application examples
- Structural repairs to cracked beams, pillars and floor slabs by low pressure injections.
- Restoring the waterproofing capacity of cracked basins, storage tanks and water channels.
- Injection repairs to façades, coatings and detached architectural features.
- Structural consolidation and cracks repairs in road works and civil and industrial structures.
- Bonding steel plates to concrete for external reinforcement of beams, columns and floors slabs.
- Fixing of anchor bolts, starter bars, etc.
- Re-bonding floor toppings and tiles by low pressure injections.

TECHNICAL CHARACTERISTICS
Epojet HV MY is a solvent-free epoxy adhesive made up of two pre-dosed components which must be mixed together before use.
Epojet HV MY hardens without shrinking and, once hardened, is waterproof and resists chemical agents in the atmosphere. It may be used on slightly damp substrates.
Epojet HV MY has excellent dielectric properties and high mechanical strengths. It bonds perfectly to concrete and achieves very high bond strengths to prepared steel surfaces.

RECOMMENDATIONS
- Do not use **Epojet HV MY** if the temperature is lower than +10°C.
- Do not use **Epojet HV MY** for injecting into cracks with standing water or into cracks subject to water leaks under pressure.
- Do not attempt to dilute **Epojet HV MY** with solvent or water.

APPLICATION PROCEDURE
Preparing the substrate
Before injecting **Epojet HV MY** or using it to anchor elements, concrete surfaces must be perfectly clean and sound. Remove all crumbly and detached parts and all traces of dust, cement laitance and paint by brushing or sandblasting. Concrete impregnated with oil or grease must be completely removed.

a) Steel plate bonding
Grit-blast steel surfaces to bright metal to meet the requirements of SA 2 ½. Once this procedure is completed, fix the steel plate to the concrete with expanding bolts. Position the injectors in the space between the structure and the plate and seal with **Adesilex PG2 TG**. After **Adesilex PG2 TG** has hardened, inject **Epojet HV MY** through the injectors.

b) Crack-sealing injections
Make a series of 8-9 mm diameter holes on the sides of the crack and angled to intercept the crack. Blow out the cavities with compressed air to remove all the dust

Epojet HV MY

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
	Part A	**Part B**
Colour:	neutral	straw
Appearance:	liquid	liquid
Density (g/cm^3):	1.2	0.99
Viscosity at +23°C (mPa.s):	1,500	200
APPLICATION DATA		
Mixing ratio:	component A : component B = 2 : 1	
Consistency of mix:	fluid liquid	
Density of mix (g/cm^3):	1.1	
Brooksfield viscosity **- at 23°C (mPa.s)** **- at 30°C (mPa.s)**	 430 270	
Pot Life at 23°C (mins):	30	
Full cure (days):	7	
Application thickness (mm) **- minimum** **- maximum**	 0.2 5	
FINAL PERFORMANCES		
Compressive strength after 7 days at +23°C (EN196-1) (N/mm^2):	65	
Flexural strength after 7 days at +23°C (EN 196-1) (N/mm^2):	21	
Bond strength to concrete (EN 1542) (N/mm^2):	> 2 (concrete failure)	

formed during the drilling. Insert the appropriate bore packers in the holes and seal the entire working surface with **Adesilex PG2 TG**.

If the holes cannot be formed because of lack of space, position and fix adhesion packers directly into the crack and seal with **Adesilex PG2 TG**.

After **Adesilex PG2 TG** has hardened, inject compressed air to make sure that the system is completely free for injections.

Preparing the product
The two components of **Epojet HV MY** must be mixed together. Pour component B into component A and mix with a low speed drill mixer, avoiding the formation of air bubbles, until the mix is perfectly homogeneous.

If the packs need to be used partially, use an electronic precision scale to measure the exact quantities and ensure the correct mixing ratio. Incorrect mixing ratios may lead to incomplete hardening.

Applying the product
Inject **Epojet HV MY** into cracks immediately after mixing with a suitable pump starting from the lowest packer. Seal the packer as soon as

resin comes out of the adjacent port. Continue the injection process upwards until the crack is completely sealed.

Horizontal cracks may be filled by pouring **Epojet HV MY** directly into the crack. In order to direct the fluid material into the crack, use **Mapeflex** sealant to form the walls of a channel centred on the crack. This filling process may need to be repeated for the crack to be completely saturated and filled.

Epojet HV MY must be applied within 30 minutes of being prepared at a temperature of +23°C.

For filling gaps of more than 5 mm thickness, please contact our Technical Service for assistance.

Cleaning
Tools used to prepare and inject **Epojet HV MY** must be cleaned immediately after use with solvent (ethanol, toluene, etc.) before the product hardens.

Consumption
– Sealing cracks:
  1.1 kg/dm^3 of cavity to be filled.
– Bonding steel plates to concrete:
  1.1 kg/m^2 per mm of thickness.

PACKAGING
15 kg set
(Component A: 10 kg - Component B: 5 kg)

STORAGE
Stored unopened in dry conditions at 25°C, the shelf life is 12 months minimum.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION
Epojet HV MY component A is irritant for the skin and eyes. Both components A and B may cause sensitization if they come into contact with the skin of those predisposed.
Epojet HV MY component B is corrosive and may cause burns, moreover it is harmful if swallowed. The product contains low molecular weight epoxy resins that may cause sensitization if cross-contamination occurs with other epoxy compounds.
During use, wear protective gloves and goggles and take the usual precautions for handling chemical products. If the product comes into contact with the eyes or skin, wash immediately with plenty of clean water and seek medical attention.
Epojet HV MY components A and B are also hazardous for aquatic life. Do not dispose of these products in the environment.
When the material reacts it generates a high amount of heat. We recommend applying the product as soon as possible after mixing components A and B and to never leave the container unattended until it is completely empty.
For further and complete information about the safe use of our product please refer to our latest version of the Material Safety Data sheet.

PRODUCT FOR PROFESSIONAL USE

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

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All relevant references for the product are available upon request and from www.mapei.com

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