

MIXSET PU

Polyurethane injection water tight grouting system

Mixset PU is a high strength, solvent free, low viscous polyurethane water tight anchoring grout. It consists of two components; mixed in the proportions supplied to form a strong permanent bond and seal in cracks in concrete and masonry.

The system is designed as moisture reactive polyurethane which expands to form closed cell foam when contact with water. It is suitable to apply in repair and seal various types of live cracks and where there is water ingress or leakage.

Appropriation

Mixset PU can be used to fill and bond static dormant and dynamic cracks in:

- Concrete floors
- Substructures
- Basements
- Underpasses
- Tunnels
- Abutments
- Beams and columns
- Bridge cracks
- Piers

Characteristics

Early and quickly gains high strength

Moisture tolerant - can be applied to slightly damp conditions

Corrosion resistant

Low viscosity helps to penetrate into the micro cracks and cavities, for horizontal cracks with 1mm and greater can be simply poured in

Resistant to wide range of chemicals

Non-shrink, adhere with no reduction in bonding strength

Designed for hot climates

Excellent adhesion to dry and damp surfaces

Technical Data & Properties

Composition: Two part liquid polyurethane

Tensile Strength: N/A

Flexural strength: N/A

Permeability: Impermeable

Pot life: 6 hours @ 25°C

Specific gravity: 1.05

Service temperature: -20°C to +80°C

Final cure: will cure with water or humidity

Product Management

Surface preparation: The surface to apply Mixset PU should be structurally sound and clean. Remove traces of oil, mould release agent, curing compound, grease, paint, laitance or any other contaminants. The area shall be dry and free of standing water.

The surface should preferably be prepared using high pressure water jetting or light abrasive blasting, followed by thorough washing to remove dust and remaining particles. Dirt alone may be removed with wire brush or mechanical way. Blow the cracks and treated surface with oil and dust free air to ensure complete removal of all dust and loose particles. Ensure that the surface is thorough dry.

MIXSET PU

Polyurethane injection water tight grouting system

Method of application - 1:

Areas where cracks occur but which are not substantially affecting the integrity of the concrete or structures I e, sealing to prevent further deterioration through the ingress of harmful substances

Method of application - 2:

Where cracks have developed and require absolute restoration of structural integrity i. e, pressure sealing to ensure total bond between interfaces or where injection of Mixset PU is required to stop the ingress of water

In each method all cracks to be treated should be flushed out with clean, dry, oil free compressed air or inert gas. This should be done after drilling of injection holes or fixing nipples.

Where loose mortars or aggregates exist these should be neatly routed out into a small U groove and the dust blown out.

Steps:

Treat the cracks as per method

Clean the cracks, Fix the nipples bonded on

Seal the cracks with Mixbuild EP and make ready for injection

Grout, remove nipples and seal the surface with Mixbuild EP

Method of application – Vertical:

Pre drill into cracks to a minimum depth of 15 to 25mm. The centers of these drilled holes should be set apart approximately 1 to 1.5 times the depth of the crack. (150 to 300mm)

Attach nipples with flange attachments over these centers and bond with Mixbuild EP

If concrete members are cracked on both sides those nipples set in the rear should be sited midway relative to those at the front (consider method 2 in case of the thickness of the member and width of the crack will possibly inhibit the penetration of grout) Once all nipples have been bonded the cracks are then sealed at the surface with Mixbuild EP and allow to cure 6-8 hours. It is obviously imperative that cracks be sealed on both sides.

Injection procedure:

Mixing: Mix thoroughly the entire part A & B components until an uniform color achieved. Only mix sufficient quantity resin that can be used within the pot life of the material.

Equipment: The system should be used with standard injection gun having closed containers.

Material placing: Pour the mixed material into the injection gun and insert into the lowest point. Inject the material until it seeps out of the nipple above. Blank the first nipple and continue the injection process in the nipple above.

Repeat the process until the whole length of the crack has been injected. Ensure that injection is effected at a steady rate. Allow to cure overnight and remove nipples. Repair any blemishes with Mixbuild EP.

MIXSET PU

Polyurethane injection water tight grouting system

Injection to stop water ingress:

Mixset PU will stop the flow of water as it forms and cures. When the water ingress stops, start injection with Mixset EP and pump sufficient quantity through and out of the crack to ensure all water and dust is removed. Allow 48 hours for the concrete to dry.

Points to be noted:

- Before sealing or injection any materials, it is important to ascertain why and how the cracks originated, this will significantly affect the selection process of repair of materials.
- All cracks should be thoroughly cleaned to ensure a strong bond develops between interfaces.
- Equipment should be cleaned immediately following use with cleaning solvent

Consumption:

1 ltr will fill 1sqm @1mm thickness

Cleaning: Clean the tools and mixers with solvent immediately after the use. Hardened materials can only be removed mechanically.

Packing & Storage

Mixset PU is available in 1 litre and 4 litre kit. For site installations or mass consumptions, deliveries shall be made in bulk custom-designed containers. Mixset PU should be stored in cool, dry and shaded warehouses. Shelf life is 12 months when stored under cover, out of direct sunlight, protected from extreme temperatures and as per recommendations. In extreme tropical climate, the product must be stored in cooled ambience. Excessive humidity and over exposure to UV will result in the reduction of shelf life.

Health & Safety

Mixset PU contains no hazardous substances. As with all construction chemical products, caution should always be exercised. Protective clothing such as gloves and goggles shall be worn whilst handling. Wearing long sleeve overall, safety shoes and face mask is recommended for maximum safety. Reseal all containers after use and ensure product is stored as instructed on the safety section of the labeling. Treat any contact to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately. For more details, please refer to the MSDS released on each FAB product

Rev. Nov-10/01



Technical information given in this datasheet is true and exact to the best of our knowledge, laboratory upshot and hands-on application. The datasheets of all products are revised/updated regularly and hence ensure that the latest release is used for reference and recommendation. The date of the publishing is as in this sheet. All data are mean of numerous tests, assessment and analysis conducted under laboratory ambience. Climatic disparity in temperature, humidity, etc. and porosity of substrate may impinge on the values.

Group Head office:

PYCHEM Co. L L C
Post Box 23940, Sharjah.
Te: +971 6 5420414 / 5431636
Fax: +971 6 5421446
Mail: mail@fab-cc.com
fabchem@gmail.com

Under Technical Collaboration with
MIX UK Limited
Cherry Tree House, Cherry Tree Lane
Rostherne, Cheshire, WA143RZ
Web: www.mixuk.com

Head office:

T33A/1, Thyryambhava Houses
Kalapetty road, Coimbatore – 14
Tel: 0422 3222245
Fax: 0422 2625207
Mail: mail@fab-cc.com
fabchem@gmail.com