BUILDING TRUST

PRODUCT DATA SHEET

Sika® Injection-216

Structural polyurethane injection resin

PRODUCT DESCRIPTION

Sika® Injection-216 is a 2-part, polyurethane structural injection resin. It is specially formulated for crack injection work by pressure injection.

USES

Sika® Injection-216 may only be used by experienced professionals.

Fills and seals voids and cracks in structures and construction elements such as:
- Bridges
- Civil engineering structures
- Tunnels
- Mines
- Industrial and residential buildings
- Water retaining structures
- Ground stabilisation
- Columns
- Beams
- Foundations
- Walls
- Floors

CHARACTERISTICS / ADVANTAGES

- Very good adhesion to concrete, masonry and stone.
- Suitable for dry, damp and wet conditions
- Very high mechanical properties
- Fast curing with or without water contact
- Reaction time adjustable with accelerator
- Injectable with 1-component or 2-component pumps
- Compatible with concrete, mortar, metal, plastic coated components, cable coatings, etc.
- Resistant to salts, alkali and acids present in construction components or in the ground
- Prevents the ingress of water and infiltration which can cause reinforcement corrosion

APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to EN 1504-5 - Concrete injection
- EU Drinking Water Approval (not DWI Reg31), Sika® Injection-216, KTW- B, LADR

PRODUCT INFORMATION

Product Declaration	EN 1504-5: Concrete injection	
Chemical Base	Polyurethane	
Packaging	Part A	9,9 kg
	Part B	12 kg
	Refer to current price list for packaging variations.	
Shelf Life	24 months from date of production	

Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.

Colour	Part A:	yellowish
	Part B	brown
	Part A+B mixed	~ amber
Density	Part A	~1,0 kg/l
	Part B	~1,2 kg/l
Viscosity	~425 mPa·s (+23 °C)	

TECHNICAL INFORMATION

Compressive Strength	~70 N/mm² (7 days / +21 °C)	(ISO 604)
Tensile Strength	~30 N/mm² (7 days / +21 °C)	(ISO 527)
Tensile Modulus of Elasticity	~1850 N/mm² (7 days / +21 °C)	(ISO 527)
Elongation at Break	~1,9 % (7 days / +21 °C)	(ISO 527)
Chemical Resistance	Resistant to salts, alkali and acids present in construction components or in the ground. Contact Sika Technical Services for additional information.	
Reaction to Fire	B2	(DIN 4102-4)

APPLICATION INFORMATION

Mixing Ratio

A : B = 1 : 1 parts by volume
A : B = 1 : 1,2 parts by weight

Substrate Temperature

> +1 °C

Pot Life

Temperature	Time
+10 °C	~50 minutes
+20 °C	~25 minutes
+30 °C	~10 minutes

The pot life begins when Parts A+B are mixed. It is shorter at high temperatures and longer at low temperatures. The greater the quantity mixed, the shorter the pot life. To obtain longer workability at high temperatures, chill Parts A+B before mixing (not below +5 °C).

VALUE BASE

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

- When injecting into wet environments, material will start foaming at the contact area interfaces.
- When filling large cavities / voids, the exothermic reaction of the mixed product may generate heat.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

Regulation (EC) No 1907/2006 (REACH) - Mandatory training

As from 24 August 2023 adequate training is required before industrial or professional use of this product. For more information and a link to the training visit www.sika.com/pu-training.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Crack injection: Concrete / masonry

- The substrate surface along the line of the crack capping sealer (i.e. Sikadur®-31+), must be sound, clean, dry or matt damp.
- It must also be free from standing water, ice, dirt, oil, grease, coatings, laitance, efflorescence, old surface treatments, all loose particles and any other surface contaminants that could affect adhesion of the capping sealer.

SUBSTRATE PREPARATION

Crack injection: Concrete / masonry

- Cracks may be dry, damp or wet, but free from standing water.
- After inserting or bonding injection ports, cap the crack with a capping sealer (i.e. Sikadur®-31+) and allow to cure.
- Remove any standing water by oil free compressed air.
- Remove contaminants by purging crack with resin until the resin runs clean and contaminant free.

MIXING

IMPORTANT: Mix full units only.
IMPORTANT: Avoid over-mixing to minimise air entrainment.
Requirement: Use a low speed electric single paddle mixer and stirrer (300–400 rpm) for mixing
Note: Mix only the quantity that can be used within its pot life.

1-Component pump

1. Add Parts A + B into a clean, dry mixing container.
2. Mix Parts A + B continuously for ~2,0 minutes until a uniformly coloured mix is achieved.
3. Add mixed resin into the pump's hopper.

2-Component pump

1. Add Part A and Part B into the 2 separate pump dispensers.
2. Set the metering ratio of the pump to: A : B = 1 : 1 parts by volume A : B = 1 : 1,2 parts by weight
3. Parts A + B will be mixed automatically by the pump`s mixing head (static-mixing element).

APPLICATION METHOD / TOOLS

- Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.
- Preliminary trials must be carried out by a competent applicator to establish suitability of resin, packer spacing (for crack injection), injection equipment and pressure.

CLEANING OF TOOLS

- Clean all tools and equipment using the Sika® Injection Cleaning System. Refer to the Product Data Sheet.
- Use Sika® Injection Cleaner C1 for pump cleaning of non-cured resin. Hardened material can only be mechanically removed.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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