

Sika® MonoTop®-610

Bonding Slurry and Reinforcement Corrosion Protection

Description	Sika MonoTop-610 is a cementitious, silicafume containing polymer modified one-component coating material used as bonding slurry and corrosion protection for reinforcement.	
Uses	Corrosion protection for reinforcement in concrete repair. Bonding slurry on concrete and mortar as part of the Sika MonoTop Repair system.	
Advantages	– Easy to use with water only – Easy, user-friendly application – Excellent adhesion to concrete and steel – Good resistance to water and chloride penetration – Moisture intensive – Good mechanical strengths – Sprayable in wet spray method – Frost deicingsalt resistance according SIA 162/1, testing method NR.9	
Test Certificates	EMPA; LPM;	Federal Material Testing Laboratory (Dübendorf, Switzerland). Laboratory for Preparation and Methology (Beinwil a. See, Switzerland).
Technical data		
Colour	Grey	
Mix ratio	<i>For brush application:</i> Water : Powder = 1 : 4.75 parts by weight 1 : 4.13 parts by volume 1.05 l water / 5 kg powder, resp. 5.25 l water / 25 kg bag <i>For spray application:</i> Water : Powder = 1 : 5 parts by weight 1 : 4.35 parts by volume 1 l water / 5 kg powder, resp. 5 l water / 25 kg bag	
Pot life (23°C)	Approx. 90 - 120 minutes	
Storage	Not affected by frost. Store in dry conditions.	
Shelf life	15 months from date of production if stored properly in unopened original packing.	
Packaging	10 kg pail (two bags at 5 kg) 25 kg paper bag	Pallets 40 x 10 kg = 400 kg Pallets 40 x 25 kg = 1000 kg



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 within their shelflife. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under „www.sika.ch/bauchemie“.

Physical Data

Density (20°C)	1.15 kg/l (bulk density of powder) 2.00 kg/l (density of fresh mortar)
Mechanical strengths (28 days)	·Compressive strength 45 - 55N/mm ² ·Flexural strength 5.5 - 7.5N/mm ² ·Adhesive tensile strength 2 - 3N/mm ² (on concrete)
Modulus of elasticity (static)	~ 20'000 N/mm ²
Coefficient of thermal expansion	~ 15·10 ⁻⁶ per °C
Index of resistance to diffusion of water vapour (μH ₂ O)	~ 80
Index of resistance to diffusion of carbon dioxide (μCO ₂)	~ 200

Application

Limitations	Application temperature: - Minimum + 5°C - Maximum + 30°C
Material consumption	· For 1 litre of fresh mortar: ~ 1.65 kg powder are required · As a bonding slurry: ~ 1.5 - 2.0 kg/m ² dry mortar (powder) · As an anti corrosion coating on reinforcement: ~ 2 kg/m ² dry mortar (powder) for one coat of 1 mm dry film thickness(2 coats are normally applied)
Substrate	<i>Concrete:</i> Must be sound, free of loose or weak particles, dust and dirt. In particular oil and wax containing layers as well as laitance must be completely removed. <i>Reinforcement:</i> Clean, free from oil, grease, rust and scale and concrete. Optimal degree of cleaning SA 2.
Mixing	Pour water in the correct proportion into a suitable mixing vessel. Whilst stirring slowly, add powder. To avoid entraining too much air, mix mechanically for at least 3 minutes, using low speed electric stirrer (max. 500 RPM). Sika MonoTop 610 must be mixed to a brushable, only slightly dripping consistency.
Application	<i>As a reinforcement protection:</i> Apply first layer of approx. 1 mm thickness, using medium hard brush, roller or spray to the cleaned reinforcement. Apply the second layer at identical thickness after a waiting time of 4 - 5 hrs. (at 20°C). Following repair mortars can be applied after a similar waiting time. <i>As a bonding slurry:</i> Apply by brush, roller or suitable spraying equipment to the prepared (pre-wetted) substrate. To achieve a good bond Sika MonoTop 610 must be rubbed well into the substrate, fill all unevenness. Any following repair mortars have to be applied wet on wet to the bonding slurry.
Cleaning	Application and mixing tools should be cleaned with water immediately after use. Hardened material can only be removed mechanically.

Safety Instructions

Safety precautions	Sika MonoTop-610 is caustic (cement). Protect skin and eyes from contact with mortar. Wear protective clothing and goggles while working with the product.
Ecology	Do not dispose of into water soil but according to local regulations.
Toxicity	Non-toxic under the relevant Swiss Health and Safety Codes.
Transport	Non-hazardous.



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