

Sika MonoTop[®] -610

Bonding mortar and corrosion protection for reinforcement

Construction

Description	Sika MonoTop-610 is a one-component, cementitious, polymer modified mortar containing silica fume and corrosion inhibitors.
Uses	<p>As a treatment for preventing continued corrosion of steel reinforcement in concrete, and as a bonding bridge for concrete patching mortar. Sika MonoTop-610 is an integral component of the Sika MonoTop Concrete Repair System:</p> <p>Sika MonoTop-610 – bonding mortar and reinforcement protection.</p> <p>Sika MonoTop-615HB – high build patching mortar.</p> <p>Sika MonoTop-620 – superfine fairing coat.</p>
Advantages	<ul style="list-style-type: none"> • 1-component system requires only the addition of water. • Easily applied by brush, roller or spray. • Excellent bond to steel and concrete substrates. • Highly impermeable to water and chlorides. • High mechanical strengths. • Non-toxic.
Storage and Shelf Life	Stored in the original sealed packaging in dry conditions, this product will keep for at least twelve (12) months.
Instructions for Use	
Surface Preparation	<p>Correct and thorough surface preparation is essential to achieve the high adhesive qualities of Sika MonoTop mortars.</p> <p><i>Concrete, Mortar, Stone:</i> Mechanically abrade the surface with a needle gun, mechanical wire brush, grind, grit or water blast. All surface laitance must be removed.</p> <p>All surfaces must be clean, sound and free from dust, ice, oils, grease or other surface contaminants such as curing membranes and form release agents, etc.</p> <p>The strength of the concrete or mortar substrate should be at least 20 MPa.</p> <p>The prepared substrate should be thoroughly soaked with clean water until uniformly saturated, leaving no standing water, i.e. Saturated Surface Dry (SSD) condition.</p> <p><i>Steel Reinforcement:</i> All surfaces must be clean, free from oil grease, rust, scale, concrete and other surface contaminants. Abrade the surface by wire brushing, water/grit blasting, etc. Abrasive blast cleaning should be carried out to a standard equivalent to AS 1627.9 C Sa 2 or D Sa 2.5 as appropriate. (Pictorial surface preparation standards for painting steel surfaces where C grade refers to rusted steel and D grade refers to pitted and rusted steel).</p>
Mixing	Add powder into water at the correct mixing ratio and stir with a forced action mixer (max. 500 rpm) for a minimum period of 3 minutes or until a uniform homogeneous consistency is achieved.
Application	<p><i>For Reinforcement Protection:</i></p> <p>Apply by brush or spray onto the previously prepared steel surface to a thickness of approximately 1 mm.</p>

Application (continued)	Apply a second coat, also approximately 1 mm thick, 4 to 5 hours after the first coat. The subsequent repair mortar should be applied after a similar period of time. <i>For Bonding Bridge:</i> Apply a coating approximately 1 mm thick by brush, roller or spray onto the previously prepared concrete surface which must be in the Saturated Surface Dry (SSD) condition. To achieve the optimum bond the Sika MonoTop-610 should be worked into the substrate to ensure all areas of the substrate are completely covered. The subsequent repair mortar must be applied while the Sika MonoTop-610 bond coat is still wet.
Cleaning	Remove soft Sika MonoTop-610 from tools and equipment with water. Hardened material can only be removed mechanically.
Technical Data (Typical)	
Form	Slightly gritty slurry
Density	1.15 kg/litre dry powder 2.0 kg/litre fresh mortar
Mixing ratio	Water : Powder 1 : 5 by mass To one 10 kg pail of Sika MonoTop-610 and 2 litres of water.
Potlife	90-120 minutes approx. at 23°C
Application Temperature	+5°C to +35°C (<i>substrate and ambient temperatures</i>) +5°C to +25°C (<i>mortar temperature</i>)
Application thickness	Minimum 1 mm per coat Maximum 3 mm per coat
Compressive strength	45 – 55 MPa approx. @ 28 days
Flexural strength	5.5 – 7.5 MPa approx. @ 28 days
Bond strength	2 – 3 MPa approx. @ 28 days on prepared concrete
Colour	Light Grey
Consumption	As bonding bridge: Depending on substrate condition, approx. 1.5 – 2.0 kg/m ² of dry powder. As anti-corrosion coating on reinforcement: Approx. 4 kg/m ² of dry powder for 2 coats at 1 mm dry film thickness per coat.
Important Notes	<ul style="list-style-type: none"> For further information on grouting, refer to the Sika Grouting Guide, or contact Sika's Technical Department for more details. Cements containing fly ash are unsuitable. Not suitable for use in underground mines.
Handling Precautions	<ul style="list-style-type: none"> Avoid contact with the skin. Protective gloves and clothing are recommended when mixing or using this product. Full material safety data sheet is available from Sika on request.
Important Notification	<p>The information, and, in particular, the recommendations relating to the application and end-use of Sika's 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 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 of our terms and conditions of sale. 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.</p> <p>PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.</p>

