

Sicon shotcrete patching mortar SZT4, ready to use cement-based dry blend for spraying, with a maximum coating thickness of 40 mm

Product description	Ready to use, cement-based dry blend
Scope of application	<ul style="list-style-type: none"> • System repair and modernization of all types of concrete surfaces, i.e., of bridges, tunnels, water dams, sewage treatment plants, drinking water reservoirs, • Both internal and external use possible, • In places of chemical loads, in case of high concentration of sulphate in the substrate.
Properties	<ul style="list-style-type: none"> • does not contain chlorides, • resistant to frost and de-icing salts, • short setting time, • low shrinkage, • very good adhesion to concrete, • Complies with the requirements of PN EN 206-1, exposure classes from XA2 to XA3, reaction to fire - non-inflammable, A1 class - according to PN EN 13501-1+A1:2010, waterproof W8, • Coating thickness from 0 to 40 mm.
Characteristics of the product	
Appearance	Gray powder
Packaging	30 kg paper bag, reinforced with polyethylene foil; single pallet: 42 x 30 kg = 1260 kg per euro pallet.
Shelf life	9 months from date of manufacture, assuming storage in undamaged original packaging.
Storage conditions	Store the product in a dry, cool place, avoid direct sunlight.
Technical data	
Adhesion to the substrate according to PN-EN 1542	≥ 1.5 MPa
Application	
Consumption	<p>Estimated consumption of the preparation:</p> <ul style="list-style-type: none"> • Approx. 0.45 l of fresh mortar using 1 kg of SICON SZT4 dry blend, • Approx. 2100-2300 kg of dry blend, per 1 m³ of the mortar. • Approx. 23 kg/m²/10 mm (plus splinter up to 25% depending on the surface).
Substrate preparation	<p>The substrate should be cleaned of components reducing its adhesion. It is possible to use blasting, shot blasting or high pressure water jetting method. At the same time, it shall allow for obtaining a rough surface of the substrate.</p> <ul style="list-style-type: none"> • in terms of strength – the average strength of the substrate tested using “pull-off” method should be at least 1.5 MPa, and the value of a single measurement should not be less than 1.0 MPa, • discovered damaged parts of reinforcing steel should be cleaned in accordance with Sa 2 ½, according to PN-EN ISO 8501-1, • so prepared substrate should be moistened with water, the substrate should be matt and damp immediately prior to application of the material.
Mixing ratio	Approx. 2100 – 2300 kg of dry blend per 1 m ³ of the mortar.
Mortar application	<p>SICON SZT4 mortar is applied by dry spraying, using a suitable equipment.</p> <p>Sample parameters of the devices: rotor 0,7 l, material feeding tube Ø 32/38 mm, nozzle Ø 32/18 mm or 32/28, compressor with a capacity of minimum 7 m³/minute. Water inflow to the nozzle should provide for obtaining a uniform wet blend, with the water pressure of at least 6 bars.</p> <p>The mortar is applied in coatings with a thickness of 40 mm.</p>
Application	An accurate prior analysis assessing the strength of the concrete substrate, on the basis of which further steps are to be determined, is very important for any future concrete repair work.
Curing	Freshly treated surfaces should be protected from drying out too quickly. It is recommended a water sprinkling or use of a preparation for surface protection.
Application conditions	
Ambient temperature	<ul style="list-style-type: none"> • minimum +5°C, maximum +30°C, • recommended application conditions: temperature approx. +20°C, relative humidity of air approx. 50 %.
Material processing time	<p>Material processing time:</p> <ul style="list-style-type: none"> • is approx. 45 minutes at +23°C, • with the relative humidity of air – higher humidity increases the processing time.
Comments and recommendations	
Health and safety conditions	The main component of the preparation is cement; therefore use personal protective equipment, the same as when working with cement, i.e., gloves and goggles, when handled. Detailed guidance on safety, health and hazardous properties of the material are included in the Material Safety Data Sheet - supplied by the manufacturer upon request. Disposal of empty packaging lies with the end user and

	should be carried out in accordance with applicable regulations.
Legal notices	<p>These instructions has been drawn up according to the current state of the art and experience in the application of the product, they refer to the products stored in accordance with the specified instructions. The product documentation provides for general information applicable under certain conditions. It is recommended that before using the product on a large scale, the purchaser tests it under specific construction environment conditions. The supplier has no control over the use, methods of application and execution conditions occurring at the construction site, and therefore no responsibility of the supplier for the final effect of the application may arise from these instructions. Recommendations of Sicon partners that differ from the information included in the Safety Data Sheet shall apply only in the case of their written confirmation.</p> <p>Date of issue: 01/2016</p> <p>All previously issued Sicon SZT4 safety data sheets shall expire on the date of issue of this sheet.</p>