

# **SC 200 PENETRATE**



Two component cement-based waterproofing mortar

## Protects concrete from carbonization

- Suitable for waterproofing roofs, balconies, bathrooms
- Penetrates and seals concrete capillaries

# Ideal substrate prior to PLANOCOLOR coatings

Description	SC 200 PENETRATE is a two-component cement-based mortar composed of selected aggregates, special additives, and a liquid, containing synthetic polymers in water dispersion. It can be easily applied using a roller, flat brush, or spatula on both horizontal and vertical concrete surfaces with excellent adhesion. Its special synthesis protects from humidity and significantly increases concrete's resistance to carbonation.
Certifications	CE marking with Declaration of Performance (DoP) C07605-CPR-2030402 as surface protection product for concrete – coating for moisture control and increased resistivity according to EN 1504-2: MC-IR.
	Certificate for carbonation resistance of concrete according to EN 13295. Certificate number: 010-034064.
Uses	<ul> <li>SC 200 PENETRATE is suitable for waterproofing and protecting in:</li> <li>Reinforced concrete in a highly corrosive environment such as bridges and structures near the sea while increasing resistance to carbonization</li> <li>Concrete and cement-based surfaces such as rooftops, terraces and surfaces exposed to weather conditions</li> <li>Masonry that comes into contact with the ground, such as foundations, basements,</li> <li>Waterproofing zone in External Thermal Insulation Systems ETICS</li> <li>Swimming pools, balconies, bathrooms, wet areas and external floorings prior to application of tiles, natural stones as well as the PLANOCOLOR GRANIT, MICRO CEMENT and TERRAZZO (micro pebble coatings)</li> <li>Masonry coatings and mortars</li> <li>Cement- and gypsum-boards</li> </ul>



## **Technical Data**

#### **Product Identification**

	Component A	Component B
Consistency	Powder	Liquid
Color	Grey & White	White
Chemical base	Portland cement, quartz aggregates, special additives	Acrylic dispersion
Granulometry	D <sub>max</sub> : 0,3 mm	
Apparent weight	1,4 ± 0,1 kg/L	
Density		1,05 ± 0,05 kg/L
Storage	12 months stored in dry place in the origina	al sealed packaging

### Application Data (+23°C % & 50% R.H.)

Mixing ratio	Part A : Part : B $\approx 25$ : 7
Density of fresh mortar	1,95 ± 0,05 kg/L
Pot life	≈ 60 – 90 minutes
Application temperature	from +8°C up to +35°C
Application thickness	Total thickness at least 2 mm, 1 mm per layer

## Final Performances according to EN 1504-2:2004 & 13295:2004

	Performance	Method
Permeability to water vapour	Class I: $S_D < 5 \text{ m}$	EN ISO 7783-1 & 2
Capillary absorption and permeability to water	≤ 0,1 Kg/m <sup>2</sup> h <sup>0,5</sup>	EN 1062-3
Adhesion strength by pull-off test	$\geq$ 2 N/mm <sup>2</sup>	EN 1542
Compressive strength	≥ 20 N/mm <sup>2</sup>	EN 12190
Flexural strength	≥ 7 N/mm <sup>2</sup>	EN 12190
Resistance to carbonation	pass	EN 13295
Resistance to fire	F	EN 13501-1



Application Procedure	
Substrate Preparation	The application surface must be clean and solid, without cracks, free of dust, laitance, form release agents, oil, paint, and rust. Carbonized and degraded concrete should be removed till a solid and healthy substrate is obtained. If required repairs by using RUST CONVERTER, NOVAFER and RC 340 or RC 440. Existing cracks on the substrate should be bonded using the two-component epoxy adhesive EPO FLUID. In applications where we have constant water infiltration from the exterior (negative pressure) seal all the leakages with the cement based fast setting waterproofing product SC FAST.
	Dampen the substrate up to saturation. Avoid standing water or condensed water on the surface prior to the application.
Preparation of the mix	In a clean container pours component B (liquid 7L) and then slowly add component A (powder 25kg) while stirring. Stir by means of an electrical mixer in low rpm for 3-5 minutes until a perfectly smooth and homogeneous mix free of lumps is obtained. Under normal conditions the mix should be applied within 60-90 minutes. Low temperatures extend the life of the mortar while, on the contrary, high temperatures drastically reduce pot life and workability.
Application of the mix	Application should be made in two or more layers with a total thickness of at least 2 mm. Apply a first layer with a flat brush or roller on the properly prepared surface. Apply the second coat when the first one has hardened enough. For better thickness control, it is recommended to incorporate a suitable alkaline fiberglass mesh such as NOVAMIX FIBERGLASS NET on the first layer of the mortar while it is still fresh and smooth the surface with a metallic spatula.
	In all critical areas, such as a floor joint with walls and vertical construction elements, the sealing zone must be reinforced using a sealing membrane. Apply a layer of SC 200 PENETRATE to a width of 10 cm on both the floor and the walls or any other vertical element of the structure and incorporating into the fresh still mortar a suitable waterproofing membrane. Then the membranes must be covered with a second layer of SC 200 PENETRATE.
	In any case the application should overlap the entire surface with a uniform thickness coat. After application, SC 200 PENETRATE should be left to cure in a relatively humid environment. Protect the fresh mortar from rain, frost and fast drying by suitable means.
Recommendations	<ul> <li>Apply only upon structurally stable and well-prepared substrate</li> <li>Avoid application under direct sunlight or/and strong wind</li> <li>Do not add cement, gypsum, lime or other materials that might affect the properties of the mortar</li> <li>Do not apply upon PVC and bitumen membranes and in general materials which polymerize in the long ran</li> <li>Do not apply in ambient temperatures less than +8°C and higher than +35°C</li> <li>Protect the application surface from rain or frost the first 24 hours</li> </ul>



	<ul> <li>Do not apply in swimming pools without covering</li> <li>For incorporating fiberglass mesh the thickness of the first layer must be 1mm</li> <li>Do not exceed the maximum thickness per layer</li> <li>Do not apply in total thickness less than 2 mm</li> <li>Do not wet between the layers</li> <li>It is recommended that the application be made by a professional</li> </ul>
Consumption	The consumption of SC 200 PENETRATE is 1,9 kg/m <sup>2</sup> per mm of thickness. This consumption does not include additional consumption due to rough or porous substrate.
Cleaning	Due to the increased adhesion of SC 200 PENETRATE it is recommended to clean tools before the material starts to set. Once the material has dried, cleaning can be done only by mechanical means.
Storage	SC 200 PENETRATE remains stable for 12 months from the production date stored in dry a place and protected from humidity, frost and direct sunlight.
Packaging	Units consisted of 25kg component A and 7kg component B. Component A available in 1250kg, component B available in 350kg pallets.
Safety Instructions	For information and instructions regarding disposal and safe handling, users should refer to the latest Safety Data Sheet of the product containing ecological, toxicological and other safety-related data.
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