

Technical Datasheet

Pozzolana®920SCR – Version 3.0 – English – Revision: 15.8.2020



Pozzolana® 920SCR

MINERAL SILICATE CHEMICAL & SALT RESISTANCE RENDERING/PLASTERING PRODUCT

Pozzolana® 920SCR is a two-component water-based mineral silicate dry mortar with a very small amount of cement contain is specifically designed for use as a corrosion protection rendering layer for concrete floors and walls. With very high chemical and salt resistance characteristics, the product helps to protect and give longer life to concrete structures.

Properties

- Advanced silicate-based binding technology, environmentally friendly, non-toxic, no allergic potential.
- Inorganic, no VOC or APEO.
- Low emission.
- Minimize inventory, save transportation costs, reduce waste products.
- Can be created surfaces with different thicknesses.
- Works well in environmental conditions. No moisture sensitive.
- Fast curing, minimize waiting time, quickly put into service.
- Can be applied on a variety of substrates including those containing calcium sulfate, magnesium carbonate. Especially, can be applied on a day-old concrete or mortar substrates.
- Sustainable, no peeling, no blistering, easy to repair and clean.
- Low shrinkage (DIN EN 13454), swelling, no natural crazing or cracks.
- Does not create alkali silicate reaction (ASR).
- Wide range service temperatures; resistant to subzero temperatures and extreme heat.
- Good abrasion resistance.
- Can withstand water pressure up to 1.5 bar from 3mm thickness.
- Not affected by UV.
- Very high resistance to salt and various strong chemicals.

Application design system

- Primer **Pozzolana®120 APM** or equivalent
- First coat **Pozzolana® 920SCR** + fibreglass fabric 1 layer
- Second Coat **Pozzolana® 920SCR** + fibreglass fabric 1 layer
- Third Coat **Pozzolana® 920SCR**
- Protection Sealer **Pozzolana® 140SSS** x 02 applications

Can add glass fiber into 920SCR mortar to improve chemical resistance, waterproofing abilities and crack resistance.

We highly recommend that 140SSS be applied where the pH is less than 3.

Technical information

Strength class (DIN EN 13813)	CT-C40-F8
Abrasion resistance (BCA)	AR 0.5
Application temperature	+5°C to +45°C
Workability time @ 20°C	approx. 50 minutes
Application thickness	6mm - 20mm / 3-5 layers
Load capacity (curing @ 25°C)	
Walkable/ ready for covering	after 12 hours
Light load	after 2 days
Fully loadable	after 4 Days
Water mixing ratio	20kg Part A: 1kg Part B: 1.8kg of clean water
Strength (DIN EN 13892)	
Compressive strength	min. 27 N/mm ²
Flexural strength	min. 6.0 N/mm ²
Bonding strength	min. 6.0 N/mm ²
Slip resistance (DIN 51130)	R10 Original R11-R13
Consumption	2.0 kg/m ² /mm.
Density	
Bulk density	approx. 1.2 kg/dm ³
Fresh mortar density	approx. 2.2 kg/dm ³
Original colors	natural grey
Chemical resistance	pH 3 – 14 pH 0 – 14 (with Pozzolana® 140SSS)
Heat resistance	-40°C to 500°C
Fire rating (DIN EN 13813)	A2

Range of usage

- Indoors, outdoors, areas with extreme weather conditions.
- Water and waste treatment plants.
- Sewerage pipes and treatment systems.
- Chemical plants and drains.

Packaging, shelf life and storage

- Part A in powder form 20 kg packed in paper bag.
- Part B in liquid form 1 kg packed in plastic bottle.
- A shelf life of 12 months from the date of manufacture.
- Store in a cool, dry place. Ideally where there is stable or controlled temperature (not < 0°C, recommended 10°C - 25°C). Reseal opened immediately after taking a portion for use.

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Preparation of substrate

Substrate surface prior to application of Pozzolana® 920SCR should satisfy the following conditions:

- Substrate prior to application of Pozzolana® 920SCR shall satisfy the following conditions:
- The surface is stable, does not vibrate, cracks and ensure sufficient adhesion strength ≥ 1.5 MPa.
- The surface is dry, clean, rough enough and free of all kinds of impurities. Surface preparation using the shot blasting, grinding, and scarifying is recommended.
- All damage, cracks, leak of water must be fixed using professional and suitable repair materials and methods.

Mixing and apply Pozzolana® 920CSR

Water Mixing Ratio

- Pour 1 kg of Part B into 1.8 kg of clean water, mix the solution well. Then pour 20 kg of Part A into the solution for stirring. Stir at high speed for at least 5 minutes.
- It is recommended to do a trial before starting an actual application because surfaces are often different.

Mixing

It is recommended to use an adjustable and concrete mixer.

- Step 1. Turn on the mixer, keep at slow speed (approx. 150RPM), slowly pour the Pozzolana® 920SCR part A powder into the mixing bucket and mix for a period of 30 seconds.
- Step 2. Switch the mixer to higher speed (300RPM) and keep mixing continuously for 3 minutes. Use a hand shovel or hand trowel to brush off the binder on the mixing drum surface and mixing paddle.
- Step 3. Mix again for 90 seconds.

When added with glass fiber (0.20 kg for 20kgs part A 920CR) need to add more water approx. 0.20 liter accordingly to get a workable paste of the mixture.

Application

- Step 1. Prime substrate with Pozzolana® 120 APM adequately.
- Step 2. Apply the 1st layer of Pozzolana® 920SCR using hand trowel on the primed substrate surface. Immediately apply the fiberglass fabric on top of mortar layer if needed. Use the hand trowel/hand power trowel to compact the surface as much as possible.
- Step 3. When the 1st layer is sufficiently dry but still damp, repeat Step 2 for 2nd layer (wet on semi-wet).
- Step 4. Repeat above Step 2 but without fiberglass fabric.

Note:

Apply minimum 3 layers, each layer not less than 2mm. Every layer shall be compacted tightly to create a very dense coat and burnish the surface to a smooth finish without pinholes.

Apply Protection Coat

To increase the chemical and abrasion resistance of the finished surface, 2 applications of Pozzolana® 140SSS can be done after the surface has been cured for 12 hours. Refer to the product technical data sheet before use.

Let the surface cure for at least 7 days before test and use.

Application tools and cleaning

- Mixer, stirring bucket, brush, hair roller, hand trowels, hand trowels machine. Use only clean equipment for mixing and application.
- All machines and tools should be washed immediately with clean water after uses. Wastewater from washing tools should be collected and disposed of appropriately to avoid possible environmental and human impacts.

Safety Information

- There is no mandatory hazard labeling for Pozzolana® 920SCR. Protect skin and eyes during the mixing and application process.
- Clean with clean water immediately if splashed in eyes.
- When apply with glass fiber/filler need to wear the right PPE and use the product follow the S.D.S from glass fiber/filler supplier.
- Please refer to the Safety Data Sheet for further information on safety during waste transportation, storage, handling and

Note

Always carefully read the application instructions before use. Other applications not covered by this document may be supplemented or made available upon request.

Disclaimer

The content of this technical datasheet corresponds to the latest developments and our experiences. All information is based on ideal conditions and therefore may not be completely accurate in actual construction. Due to different types of materials, surfaces and actual construction conditions, guarantees are not given for applications. We are not liable for this information or any verbal statements. The only exception is when we can be blamed for willful negligence in liability. In that case, the customer must prove that he has fully and promptly transmitted all necessary information to us for examination and resolution. Any other details relating to the construction of our products must be confirmed in writing by us. The customer must check the suitability of the product for the intended application and purpose. We reserve the right to change the specifications of products due to ongoing development. In addition, our general terms and conditions are valid. This product documentation supersedes all previous technical data on this product.



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