

Technical Datasheet

Pozzolana®700 Series – Version 3.0 – English – Revision: 15.8.2020



Pozzolana® 700 Series

MINERAL SILICATE BINDER FOR WALL SURFACE PLASTERING AND RENDERING

Pozzolana® 700 Series is a mineral silicate-based, eco-friendly, non-shrink binder for the purpose of creating high quality wall surfaces. The product is designed for projects with high artistic and versatile applications with the ability to meet the highest requirements in terms of aesthetics, sophistication, elegance and sustainability for architectural design works. The product can be combined with other materials such as color pigments, small stones, sand, flakes, fibers, metal powders, etc. using appropriate application methods to provide durable, colorful, diverse textured decorative surfaces.

Pozzolana® 700 Series is manufactured by the high-grade materials selected from the inorganic, non-toxic, VOC-free raw materials with outstanding properties to create seamless coating layers in various environments without any health and environmental safety hazards.

Pozzolana® 700 Series by itself can be applied in thickness of 0.5mm- 3mm in one single coat. Variant products made out from Pozzolana® 700 Series by adding aggregates can be applied to even higher thickness in one layer.

Properties

- Advanced silicate-binder technology, environmentally friendly, non-toxic, no allergic potential.
- Inorganic material, no VOC or APEO. Low emission (EC1 PLUS).
- Exceptional durability.
- Wide range service temperatures; resistant to subzero temperatures, extreme heat and thermal shocks.
- High abrasion resistance.
- Not affected by UV.
- No shrinkage (DIN EN 13454), swelling, natural crazing or cracks.
- Does not create ASR and no efflorescence.
- Water vapor permeable, no water stagnation in humid weather.
- Any practical thickness is possible in one layer.
- Can be applied onto surface which contains calcium sulfate or magnesium carbonate.
- Easy and fast in application.

Application design system

- Primer **Pozzolana®120 APM** or equivalent
- Body coat **Pozzolana® 700 Series** (or variant product)
- Finishing Coat **Pozzolana® 700 Series** without sand
- Protection Sealer **Pozzolana® 196CCS** or Pozzolana® 191ACS or Pozzolana® 190PCS or equivalent to improve stain protection.

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. 30 minutes
Application thickness	0.5mm - 3mm / 1 layer
Load capacity (curing @ 25°C)	
Ready for ceramic covering	after 3 hours
Ready for next coating	after 4 hours
Ready for paint and wallpaper	after 24 hours
Ready for synthetic resin plaster	after 24 hours
Fully loadable	after 4 Days
Water mixing ratio	3.6-3.8 liters(18%) / bag
Strength (DIN EN 13892)	20 kgs
Compressive strength	7 liters of water (35%)
Flexural strength	min. 12N/mm ² (grey) min. 15 N/mm ² (white) min. 3N/mm ² (grey)
Bonding strength	min. 5N/mm ² (white) min. 1.0 N/mm ²
Slip resistance (DIN 51130)	
Original	R10
Adding other materials	R11-R13
Consumption	1.8 kg/m ² /mm.
Density	
Bulk density	approx. 1.0-1.2 kg/dm ³
Fresh mortar density	approx. 1.4-1.6 kg/dm ³
Original colors	light grey & off-white (~ RAL 9010)
Chemical resistance	pH 4 - 14 (with protection)
Heat resistance	-40°C to 500°C
Fire rating (DIN EN 13813)	A2

Range of usage

- Indoors, outdoors, areas with extreme weather conditions, or difficult application environment, areas require fast application, or require application of different thickness layers on a surface.
- Can be used in projects such as commercial complexes, office buildings, resorts, hotels restaurants, luxury housing, etc.

Packaging, shelf life and storage

- Packed in 20kg paper bag and stowed 80 bags per pallet.
- Shelf life of 12 months from the date of manufacture.
- Store in a cool, dry area with stable or controlled temperature (not < 0°C, preferably 10°C – 25°C). Place products at least 300mm above the floor. Seal the opening immediately after taking a portion for use.

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Preparation of substrate

Substrate surface prior to application of Pozzolana® 700 Series should satisfy the following conditions:

- Prior to coating, ensure that the surface is stable and has sufficient surface tensile strength. The surface should also be ready for coating, dry or matt damp, clean and free from all kinds of debris. Deeper ruptures must be filled with Pozzolana® 700 Series mixed with dry sand. The surface should be permanently vibration-free and crack-free. Already existing cracks must be repaired professionally.
- For porous and water-permeable substrate surfaces, shall apply Pozzolana® 120APM primer. Wait for the primer to dry enough within 2 hours then apply the coating. In case the primer has been dried for more than 6 hours, it is necessary to reapply the primer before starting the coating. The drying time of the primer may vary depending on temperature, humidity and environment conditions.
- Primer prevents water from Pozzolana® 700 Series penetrating the substrate which may seriously affect workability and bonding. It also avoids air bubbles rising into the coating. Please refer to the technical data sheet of Pozzolana® 120APM for more information.
- Always apply primer on the surface of intermediate layer before applying subsequent overlay.

Mixing and apply Pozzolana® 700 Series

Mixing

- Mix the material by using a high speed (600RPM) mixer. First, add 7.0 liters of water per 20 kg powder material into the mixing container. Then, pour Pozzolana® 700 Series inside while stirring. The material has to be mixed intensely for 4-6 minutes. Mix only as much material as can be applied within 30 minutes.
- The water/binder ratio can be increased during hot and dry weather, and also when adding sand to the binder. The ratio of sand to binder is recommended to be not more than 1:1.
- For crack-sensitive substrates or for the use on wood and drywall construction, insert suitable fabric tapes or reinforcement mesh during application of Pozzolana® 700 Series. When installing reinforcement mesh, Pozzolana® 700 Series shall be mixed to a suitable consistency to apply on the primed surface with a notched trowel. Place the reinforcement mesh over the fresh mortar and press into it with a trowel. Smoothen all mortar being pressed through the mesh. For complete covering of the reinforcement mesh a second layer of Pozzolana® 700 Series is applied wet-to-wet. Apply a further layer of mortar if necessary.
- Do not cover the finished surface with membrane or other materials.

Pigmented binder

- Integral color is achieved by incorporating pigments into the binder. The recommended type of pigments to be used is inorganic synthetic oxides which are more UV stable and color fast. Integral colors are available in powder, granular and liquid forms. Powder and granular are to be premixed in the binder, whereas liquid pigments are to be blended into the water just before mixing with the binder.
- It is very important to note that selected pigments shall be suitable for use in an alkaline environment of \geq pH10-12.
- Pigment loading may vary from color to color, the amount used is relative to the amount of binder. Higher dosage of pigments may affect product workability and shall be tested for higher water/binder ratio.

Safety Information

- There is no mandatory hazard labeling required for the Pozzolana® 700 Series. Avoid inhalation of dust when opening the bag. Protect skin and eyes during mixing and application.
- Please refer to the Safety Data for more information on safety during the transportation, storage, lifting and handling of waste. Follow the instructions on the packing and related documents.

Note

Always carefully read the application instructions for the above variant products before applying. Before adding any additional material should always test and do trials before applying on site. As materials in different locations often have different properties that can make a difference on the quality of the final product. There are additional products available to be used with Pozzolana® 700 Series to improve the waterproofing, antimicrobial, antistatic, color, elasticity or workability time properties. 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.



GCM GLOBAL JSC

3/20 Bearing Rd Seven Hills NSW 2147

support@Pozzolana.com.au

www.Pozzolana.com.au



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