PEGOLAND® GEL S1

CE
EN 12004
C2 TE
S1

GlobalEPD
A VERIFIED ENVIRONMENTAL DECLARATION

DESCRIPTION

Cementitious adhesive of mixed binders with excellent workability, endowed with flexibility, high adhesion, with reduced slip and extended open time, for laying interior and exterior floor and wall tiles. Suitable for any kind of ceramic pieces. Specially recommended for façades, big surfaces floors and radiant heating floors. Suitable for gypsum or anhydrite.

TECHNICAL CARACTERISTICS

High-resistance cement-based product, with selected aggregates, additives and synthetic resins that guarantee high bond strength, excellent workability, and resistance to ageing.

ADVANTAGES AND USES

- Creamy aspect with excellent consistence which makes it easy to apply.
- Excellent workability.
- Reduced slip, excellent initial adhesion.
- Long open time, it allows the rectification of pieces.
- Deformable. S1 type according to EN 12002.
- Due to its water retention power, there is no need to moisten the substrate.
- Adhesion of all types of ceramic pieces (double-fired, single-fired, clinker, etc.), porcelain stoneware, marble, granite, and natural stone.
- Adhesion of large-format pieces, bonding of extensive surfaces with heavy traffic.
- Suitable for interior and exterior areas. Façades.
- Swimming pool renders.
- Cold storage rooms render.

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SUITABLE SUBSTRATES

- Conventional substrates based on cement, gypsum or anhydrite in which primers are not required. Suitable for all type of plasterboard partitions (PYL type).
- Overlays on marble, granite, terrazzo, natural stone, and all types of ceramic substrates for interior and exterior floors and interior walls.
- Ceramic installation on interior floors and walls with underfloor heating.
- Installation of ceramic on cementitious weather resistant systems from the MORCEM DRY range. Do not apply on top of paint.
- Substrates must be resistant enough, stable, sound, and clean. Free of dust, release agents, organic products, etc.
- All substrates should have adequate flatness. If this is not the case, make screeds of up to 5 mm with the same product 48 hours before gluing. For a greater thickness apply:
  - On screeds: Use levelling paste or screed mortar for plinths, according to the substrate and requirements.
  - On walls: Use regularization mortars with adequate tensile strength and with a curing shrinkage already completed.
- In case of heavy heat, wind, or very absorbent substrates, it is advisable to moisten the substrate and wait until the water film is totally absorbed.
- In exterior floors, the substrate must have a slope equal or greater than 1%.
- Do not apply in areas in contact with water or high-sulphate content moisture.
- All substrates must comply with the specifications outlined in section 6.4 of UNE 138002 standard.

APPLICATION PROCEDURE

- Add water (24%-30%) and mix manually or mechanically until getting a homogeneous consistence, easy to work with. Let the paste rest around 5 min. then mix again.
- Spread the kneaded product on the substrate with the help of a trowel on a maximum extension of 2 m^2. Comb the area with a notched trowel to level the thickness (check table).
- Place the tiles on the fresh adhesive, pressing and moving them until getting a complete smashing of the grooves and the proper adhesion of all the ceramic surface. Periodically check the stickiness of the adhesive by lifting a previously laid tile, if the appearance of a film without transfer on the surface of the adhesive or dehydration of the adhesive is observed, proceed to remove the material and apply a new product.
- Laying of tiles by back buttering method outdoors, for formats greater than 900 cm^2, on floors for commercial or industrial use. If there is underfloor heating, in the laying of ceramic tiles, if levelling systems are used or if the tiles have a relief that may interfere the gluing process.
- Respect the placement joints between tiles as indicated in section 7.7 of UNE 138002 standard. For interior and pool areas, the joint width should be ≥ (1.5 - 3) mm, and for exterior areas, the joint width should be ≥ (3 - 5) mm, depending on the type of installation and the larger side of the tile being placed.
- Joints should be refilled after 24 hours in walls and 48 hours after in floors.
- Use suitable joint filling products, considering the type of joint.

NOTE: The shorter the time between combing and laying the tile, the better results will be obtained.

NOTCHED-TROWEL PANEL

Maximum tiles weight on walls: 50 kg/m^2.

Type of tile	Longer side cm	Trowel used for the application of the adhesive to the substrate	Trowel used for the application of the adhesive On the back side of the tile
Mosaic	≤ 10 cm	V 3	-
Ceramic tile	≤ 20 cm	U 6	-
	≤ 30 cm	U 6	-
	≤ 45 cm	U 8	-
	≥ 45 cm	U 8	Smooth
	≤ 120 cm	U 10 - R 10	Smooth
	≥ 120 cm	U 12 - R 12	Smooth / V 3 / U 3
Ceramic sheet >3 mm - ≤ 6 mm	≤ 90 cm	U 6	Smooth

≤ 260 cm	U 8	Smooth / V 3 / U 3	
Ceramic sheet >6 mm - ≤ 9 mm	≤ 360 cm	U 10	Smooth / V 3 / U 3
NOTE 1: In the case of extruded tiles or those with a pronounced back, a back buttering method is always required using the smooth side of the trowel, regardless of the tile format.			

RECOMMENDATIONS

- The successful completion of ceramic installation can only be ensured through careful planning. Therefore, we recommend consulting the current national standards in each country, such as the UNE 138002 standard in Spain, which provides specifications for material selection, proper planning, use, and installation, to achieve the required levels of quality, performance, and durability.
- Do not apply below 5ºC or above 35ºC, and avoid application in conditions at risk of frost, rain, intense winds, or direct sunlight. Under extreme weather conditions (high wind or elevated temperatures) drying occurs faster.
- Temperatures, ventilation, absorption of the substrate and coating materials can vary the workability and setting times of the adhesive.
- Never apply using the “spot bonding” technique.
- Respect the movement joints (structural, contraction, expansion, and perimeter joints) as indicated in section 7.8 of UNE 138002 standard. These joints can be addressed by using prefabricated joints or filling them with an elastic sealant from the PUMALASTIC range.

Dimensioning of expansion joints

Scope of application	Location and dimensions	Joint width mm
Exterior walls	- Bellow each floor slab - Separation length 3 m - 4 m linear - Maximum regular area 16 m^2	≥ 8 mm
Interior floors	- Respect open contraction joints. - Otherwise: linear separation lengths ≤ 8 m. - Maximum regular area. 40 m^2	≥ 5 mm
Exterior floors	- Separation length 2.5 m - 5 m linear - Maximum regular area. 16 m^2	≥ 8 mm
Singular points	- Door steps - Changes of floor	
NOTE: When these joints affect all layers of the ceramic system, they must meet the conditions of contraction joints.		

Sizing of perimeter joints

Scope of application	Location and dimensions	Joint width mm
Interior walls	- Perimeter joints - Wall /ceiling joint	≥ 8 mm
	- Wall / wall joint	≥ 5 mm
Exterior walls	- Interior corners of the building - Exterior corners of the building	≥ 8 mm
Interior floors - Monolithic - Floating	- Perimeter joints and joints with other elements or devices	
Exterior floors	- Perimeter joints and joints with other elements or devices	
Singular points	- Joints at encounters with carpentry	≥ 5 mm

- On underfloor heating, apply when the substrate is at room temperature (between 5ºC and 30ºC). In floors with underfloor heating, it must be turned off at least 48 hours in advance and it must be turned on gradually after at least 7 days from the installation of the flooring and the grouting operation.
- Swimming pools can be refilled 7 days after applying the adhesive. The water tightness of the pool must

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be ensured by the construction of the pool itself.

- On drywall applications, make sure the substrate is well fixed to prevent movement.
- Remove any spare or bad adhered pieces on ceramic floors and fill the gaps with mortar one day before the actual application of the product. Make sure the old ceramic is free from greases or waxes, if necessary, mill the surface until the old pottery loses its shine. In case of doubt, conduct a preliminary test to establish the suitability of the solution provided.
- On façades and exterior cladding, the material will always be placed with anchoring or mechanical fixing when any of the following conditions are met format greater than 2400 cm^2, one side of the piece measures more than 60 cm, weight greater than 40 kg/m^2 or height greater than 3 meters.
- On façades when placing the top row of tiles at the top, it will be convenient to apply the adhesive with the grooves horizontally to prevent the water that could eventually enter the system from descending through the vertical grooves, affecting a larger area.
- Gypsum or anhydrite screeds must be perfectly dry (maximum residual moisture 0.5%), hard enough and free of dust or superficial grout, in the latter case, it must be removed by sanding.
- For pieces with fibreglass mesh reinforcement glued on the back, consult technical department.
- Cold rooms must be off until the correct curing of the adhesive occurs for, at least 7 days, depending on environmental conditions.
- For slate use suitable adhesives with greater shape change features.
- Pieces that can get stained due to their high-water absorption must be placed with fast-setting adhesives. Use PEGOLAND FAST FLEX C2FTE S1.

PACKAGING AND STORAGE

25 kg plastic-lined paper bags.
Shelf life: 1 year in sealed original packaging, sheltered from weather conditions and humidity.

TECHNICAL DATA

(Statistical data obtained under standard conditions)

Aspect	WHITE powder
Adjustment time	Aprox.30 min. (depending on weather conditions)
Paste life	Aprox 2 hours (depending on weather conditions)
Initial tensile adhesion strenght	≥ 1,0 N/mm^2
Tensile adhesion strenght after water inmersion	≥ 1,0 N/mm^2
Tensile adhesion strenght after heat ageing	≥ 1,0 N/mm^2
Tensile adhesion strenght after freeze-thaw cycles	≥ 1,0 N/mm^2
Time to pavement pointing and light traffic	48 h
Time to rendering pointing	24 h
Time to swimming pool filling	7 days
Service temperature	- 30ºC a 90ºC
EN 12004 Classification	C2 TE
EN 12002 Classification	S1
Approximate yield	Simple gluing: 4 Kg/m^2
	Double gluing: 6Kg/m^2

ENVIRONMENTAL PRODUCT DECLARATION (EPD)

This mortar has been elaborated with arid located close to our production centres, which has, reduce the emission of greenhouse effect gases thanks to transport and ISO 14001 certified production centres with environmental management, with a firm commitment to sustainability and respect for the environment.

Type III eco-friendly labelled mortar (The strictest one) verified Environmental Product Declaration by AENOR

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