PEGOLAND® FLEX

Deformable, Cement-based adhesive with mixed binders and excellent workability

ISO 13007
C2 TE S1
EN 12004

TESTED ACCORDING TO STANDARD ANSI 118.15

PRODUCT CONFORMITY
AL SAFAT - GREEN BUILDING
Certificate No. CL18020594

DESCRIPTION

Cementitious adhesive for porcelain tiles, ceramic tiles, and natural stones, made of mixed binders and fortified with polimers that provide strong adherence, reduced slip, and extended open time, for interior and exterior floor and wall coverings. Suitable for bonding all types of porcelain tile, ceramic tile and all types of natural stone and glass mosaic. Suitable for wet and dry areas. Highly recommended for exterior façade installations, large-area flooring and applications with underfloor heating.

TECHNICAL CARACTERISTICS

One component poduct based on high-strength cement, selected aggregates, additives, and synthetic resins that guarantee superior bond strength , excellent workability and resistance to ageing.

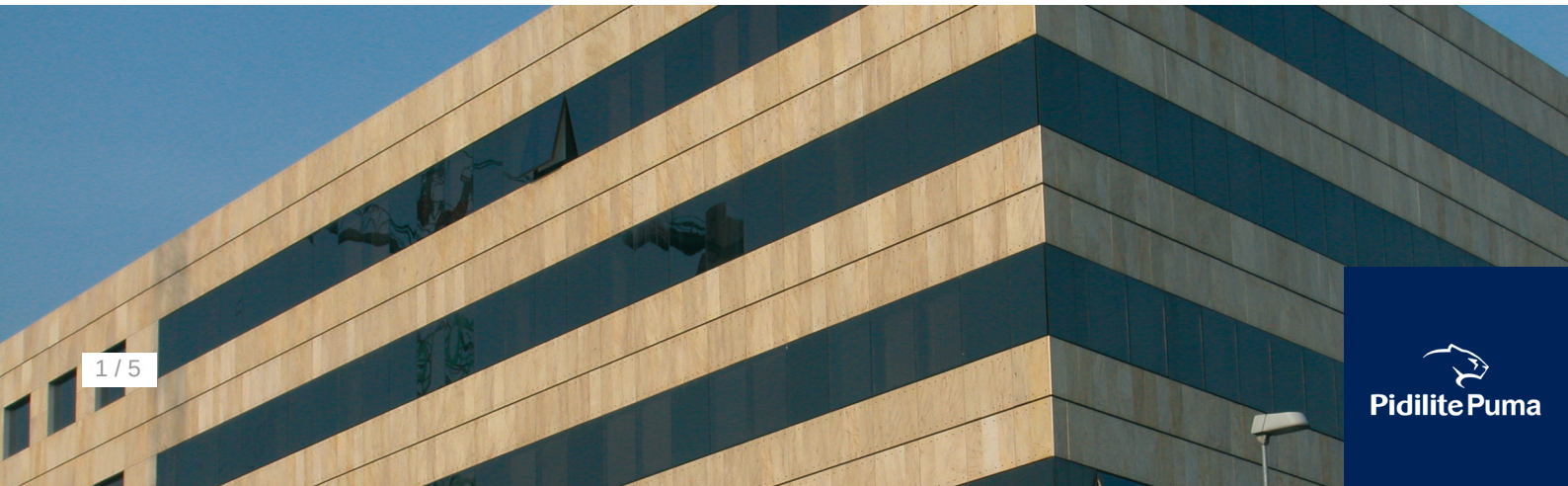
ADVANTAGES AND USES

- Excellent workability
- Reduced slip and excelent initial adhesion.
- Long open time.
- Deformable. Type S1 according to UNE-EN 12002
- Adhesion of all kinds of ceramic tile, porcelain stoneware, glass mosaic, marble, granite, slate and other natural stone.
- Highly recommended for large-format tiles.
- To be applied indoors and outdoors. Including on façades.
- Large surfaces with heavy traffic
- Suitable for tile over tile installations.
- Suitable for floor with underfloor heating.
- Suitable for swimming pools and other wet areas.
- Suitable for tiling over cementitious waterproofing surfaces.

SUITABLE SUBSTRATES

- Conventional cement-based substrates.
- All types of plasterboard or drywall.
- Marble, granite, other natural stones, terrazzo, and all types of tile substrates, for both interior and exterior flooring, as well as interior cladding.
- Substrates must be resistant, stable and sound. They must be clean, and free of dust, laitance, remains of release agents, and organic compounds.
- All substrates must have a suitable flatness. If this is not the case, levelling can be performed up to 5 mm using the same adhesive, 48 hours prior to tile installation.
  - For levelling over 5 mm thickness use:
    - On floors: depending on the particular need, Paviland SL 10/ Paviland SL 10R, self levelling compounds, or a screed.
    - On walls: mortars with an adequate tensile strength and with drying shrinkage already completed.

- In case of extreme heat, hard wind or very absorbent substrates, it is recommended to moisten the substrate and wait for the water film to dissapear.
- On exterior pavement installations, the substrate must have a slope equal to, or greater than 1%.
- Avoid application on gypsum, plaster, anhydrite or other substrates that may have a high sulphate content.



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- Avoid contact with water with high sulphate content.
- All substrates must comply with the specifications in section 6.4 of the UNE 138002 standard.

APPLICATION PROCEDURE

- Add water (23% - 25%) and mix manually or mechanically until a homogeneous and easy-to-work-with consistency is achieved.
- Let the mixture rest for 5 minutes and remix.
- Spread the mixed mortar on the substrate with a trowel to a maximum area of 2m².
- Comb the area with a notched trowel to adjust the thickness (see table).
- Place the tiles on the fresh adhesive, pressing and moving them until the ridges are fully flattened and the entire surface of the tile or stone adheres correctly. Periodically check the stickiness of the adhesive by lifting a tile. If you notice that skin has formed on the adhesive and the adhesive is no longer wet, remove the material and apply fresh product.
- Use the back-buttering / double gluing installation method for exterior applications, when laying tiles with a side exceeding 45 cm, for commercial or industrial flooring, when underfloor heating is present, when levelling systems are utilized, or when the tile or stone has surface relief that may hinder proper adhesive contact.
- Respect the joints between the tiles as indicated in section 7.7 of the UNE 138002 standard. In interiors and swimming pools, the joint width should be ≥ 1.5 - 3 mm, and in exteriors, the joint width should be ≥ 3 - 5 mm, depending on the type of installation and the size of the tile being laid.
- Joints should be grouted after 24 hours on walls and after 48 hours on floors. Use the appropiate Morcemcolor product for grouting, depending on the type of installation.

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

NOTCHED-TROWEL PANEL

Tile's format	Larger side	Trowel to be used on the substrate	Trowel to be used on the back of the tile
Mosaic	≤ 10 cm	V 3	-
Ceramic Tiles	≤ 20 cm	U 6	-
	≤ 30 cm	U 6	-
	≤ 45 cm	U 8	-
	≥ 45 cm	U 8	Smooth side of the trowel
	≤ 120 cm	U 10 / R 10	Smooth side of the trowel
	≥ 120 cm	U 12 - R 12	Smooth side of the trowel / V 3 / U 3
Large slab tiles >3 mm - ≤ 6 mm	≤ 90 cm	U 6	Smooth side of the trowel
	≤ 260 cm	U 8	Smooth side of the trowel / V 3 / U 3
Large slab tiles >6 mm - ≤ 9 mm	≤ 360 cm	U 10	Smooth side of the trowel / V 3 / U 3
NOTE 1 - In the case of extruded tiles or tiles with a very pronounced reverse side, it is always necessary to use the double bonding method with the smooth side of the trowel irrespective of the tile format.			

RECOMMENDATIONS

- The longevity of the ceramic tile installation can only be ensured with proper planning. We therefore recommend consulting the national standards in force in each country, such as UNE 138002 in Spain. These standards outline specifications for material selection, proper planning, and installation, ensuring the achievement of the required levels of quality, performance, and durability.
- Application temperature range : from 5ºC to 40ºC.
- Avoid application when there is risk of frost, rain, strong winds or direct sunlight.
- Under extreme weather conditions, drying occurs faster than normal, and less adhesive should spread before placing tiles.
- Maximum weight on vertical surfaces: 40 kg/m²
- Avoid application on gypsum plaster or paint.
- Do not use the spot bonding technique.
- Temperature, ventilation, substrate absorption, and coating materials can vary the workability and setting times of the adhesive.
- Respect the movements joints (structural, contraction, expansion, and perimeter) as indicated in section 7.8 of the UNE 138002 standard. These joints should be treated by placing prefabricated movement profiles or by filling them with elastic, deformable sealant.

Dimensioning and sizing of expansion joints

Application scope	Location and dimensions	Width of the joint mm
Exterior walls	- Under each floor slab. - Separation length 3 m - 4 m linear - Maximum regular area. 16 m^2	≥ 8 mm
Interior floors	- Respect existing expansion 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	- Doorsteps - Changes of substrate.	
NOTE When these expansion joints are positioned over structural joints, they must meet the requirements for structural joints.		

Dimensioning and sizing of perimeter joints

Application scope	Location and dimensions	Width of the joint mm
Interior walls	- Perimeter joints - Wall /ceiling intersection	≥ 8 mm
	- Wall /wall intersection	≥ 5 mm
Exterior walls	- Interior corners of the building - Exterior corners of the building	≥ 8 mm
Interior floors - Monolithic - Parquet	- Perimeter joints and intersections with other elements or devices	
Exterior floors	- Perimeter joints and intersections with other elements or devices	
Singular points	- Intersection joints at encounters with carpentry	≥ 5 mm

- Refrigerated rooms must stay turned off until the adhesive has cured, at least 7 days depending on environmental conditions.
- Swimming pools can be refilled 7 days after the adhesive has been applied. Tile adhesives do not replace waterproof membranes in swimming pools or other wet areas.
- On floors with underfloor heating, apply when the substrate is at room temperature. Underfloor radiant heated floors must be turned off at least 48 hours before installation and the ignition must be carried out gradually after at least 7 days from the installation.
- In applications on laminated plasterboard walls, ensure the substrate is securely fixed to prevent movement.

- When tiling over existing tile flooring, remove the poorly adhered pieces and fill the gaps with adhesive the day before the applying the new tiles. Ensure that the old ceramic is free of grease or wax residue. If necessary, grind the old surface until the tiles or stones lose their shine. If in doubt, perform a preliminary test to determine the suitability of the application.
- When installing façades, it is recommended to follow the local building codes or international reference stardards such as UNE 138002, BS 5385-2 or DIN 18515-1. Following these standards, Pidilite Puma recommends façade installations with combined anchoring: adhesive and mechanical fastening, when any of the following conditions are met: formats greater than 2,400 cm2, a piece with one of the sides larger than 60 cm, a weight superior to 40 kg/m2, or an application above 3m high.
- When installing water sensitive or mesh reinforced stone or agglomerate tile, contact the technical department to recommend the adhesive.
- Water-sensitive tiles that might stain or warp should be placed with a fast-setting adhesive, PEGOLAND FAST FLEX.
- For slate and thin porcelain slabs use PEGOLAND SUPERFLEX.

PACKAGING AND STORAGE

20 and 25 Kg plastic-coated bags
Shelf life:
1 year, in sealed original packaging, sheltered from weather conditions and humidity.

TECHNICAL DATA

(Statistical data obtained under standard conditions)

Appearance	EXTRAWHITE, WHITE or GREY powder
Mixing water ratio	Pegoland Flex Extrawhite: 25±1%
	Pegoland Flex White: 23±1%
	Pegoland Flex Grey: 24±1%
Adjustment time	Approx. 30 min. (depending on weather conditions)
Pot life	Approx. 2 hours (depending on weather conditions)
Service temperature	-30ºC a 90ºC
Approximate yield	single gluing: 4 Kg/m^2
	double gluing: 6 Kg/m^2

Complies with	ANSI 118.15	
UNE-EN 12004 Classification	C2 TE	
UNE-EN 12002 Classification	S1	
ISO 13007 Classification	C2 TE S1	
According to EN 12004 and ISO 13007	**Specification**	**Results**
Tensile adhesive strength (28 day cure)	≥ 1 N/mm^2	1,6 - 2,61
Tensile adhesive strength heat ageing	≥ 1 N/mm^2	1,5 - 2,77
Tensile adhesive strength after water inmersion	≥ 1 N/mm^2	1,1 - 1,4
Tensile adhesion strength after 30 min open time	≥ 0,5 N/mm^2	1,4 - 2,3

LEGAL DISCLAIMER

The information and instructions in this datasheet are based on our current tests and technical knowledge. They are intended as general guidance and do not constitute a binding commitment by PIDILITEPUMA MEA CHEMICALS LLC. It is the sole responsibility of the user to verify, prior to use, that the product is suitable for the intended application and to ensure that it is applied correctly and in accordance with applicable regulations and good industry practice.

PIDILITEPUMA MEA CHEMICALS LLC cannot control how its products are applied on site throughout the entire project and therefore cannot accept responsibility for their application by contractors or other parties involved in the execution of the work. Support visits to the jobsite by our technical staff do not change that. Our responsibility is limited exclusively to defects that can be directly attributed to the supplied products,

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whether used individually or as part of a system, caused by manufacturing defects.

It is the responsibility of the project designer, site manager, contractor, or other relevant professionals to ensure that the selected products are appropriate for the specific project, taking into account their properties, the substrate, site conditions, and any existing issues.

In the event of a claim, the original packaging must be provided to ensure proper product traceability.

Any performance values stated for PIDILITEPUMA MEA CHEMICALS LLC products or construction solutions, whether in UNE standards or other applicable standards, are based solely on the specific test conditions defined in those standards (such as substrate type, temperature, and humidity). These values may not apply to situations where products are tested or used under different conditions.