

ULTRABOND S997 1K

One-component, solvent-free, ready-to-use, flexible, silicate polymer-based thixotropic adhesive for laying wooden steps and parquet mosaic



WHERE TO USE

Bonding wooden steps and profiles on all types of substrate, including in thick layers and installation of mosaics on walls.

Some application examples

- Laying risers and treads on wooden stairs.
- Bonding wooden baseboards.
- Bead-laying three-layered, pre-finished parquet.
- Installing wood mosaics on wall.

TECHNICAL CHARACTERISTICS

Ultrabond S997 1K is a hygro-hardening, thixotropic silicate-based adhesive, produced using technology developed in MAPEI's own laboratories, with the following characteristics:

- one-component product supplied ready-to-use, no catalyser or mixing are required. The product is supplied in aluminium soft-cartridges for easy application with a special extrusion gun;
- thixotropic, may be applied in thick layers on both horizontal and vertical surfaces;
- no expansion even when applied in thick layers, so does not alter the planarity of the steps laid;
- may also be used by floor-layers allergic to epoxy and epoxy-polyurethane products;
- it does not contain solvents or isocyanates;
- easy to clean from surfaces.

RECOMMENDATIONS

- Apply at a temperature between +10°C and +35°C.
- GEV EMI CODE ECT1 R Plus.
- In particularly dry weather, the hardening time of the product is longer.

APPLICATION PROCEDURE

Preparation of the substrate

The substrate must be well cured, dry, flat, strong, clean and free of dust, crumbly parts and traces of oil, varnish, etc. On cementitious substrates, if the level of residual humidity is higher than the limit for laying, after curing, apply a suitable waterproofing primer such as **Eco Prim PU 1K**, **Primer MF**, **Triblock P**, etc.

Cementitious substrates which are not sufficiently sound and compact must be consolidated with a primer such as **Eco Prim PU 1K**, **Primer MF**, etc.

On anhydrite substrates, after sanding and removing the dust, prime the surface with **Primer MF** or **Eco Prim PU 1K**. Cracks may be repaired with products such as **Eporip**, **Eporip Turbo**, etc.

Excessively rough or uneven surfaces may be smoothed over with high-strength smoothing and levelling compound, such as **Ultraplan**, **Ultraplan Eco**, etc. Risers and treads on steps may be evened out using **Nivorapid**.

When laying on top of ceramic, marble, etc., thoroughly clean and de-grease with a suitable de-waxing product before applying the adhesive.

Metallic substrates must be primed with **Primer M**; in this case, wait at least 3 hours before laying parquet.

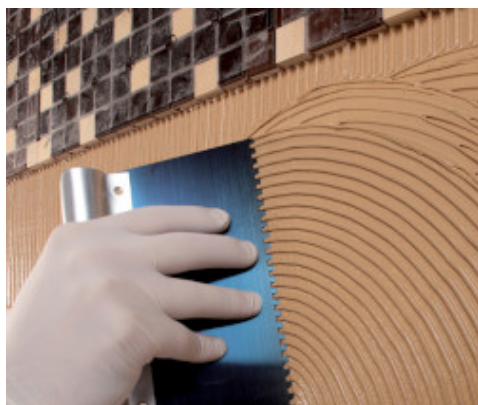
When laying on top of bonded parquet, make sure the wooden slats are well bonded to the substrate. Remove traces of varnish or wax from the surface of the floor with sandpaper down to a bare wooden surface and remove all dust with a vacuum cleaner.

Application of the product and laying wood

The product is supplied ready-to-use.

Insert the tube in a special extrusion gun. Cut the tip off the tube, insert the extrusion nozzle and trim the nozzle to the diameter of adhesive required.

- **Bonding wooden steps:** extrude the product onto the tread of the step in a series of diagonal beads 5-10 cm apart. For the risers, extrude the product in the same pattern on the back of the wooden elements. While laying, which must be carried out within the open time of the **Ultrabond S997 1K**, press down on the wooden element to ensure it makes good contact with the adhesive. After laying the elements, if the step is not plumb or flat, remove the riser or tread while the adhesive is still fresh and extrude small balls of adhesive into the areas where required.
- **Bead-laying three-layered, pre-finished parquet:** extrude a series of beads of the product onto the substrate 10-25 cm apart (according to the shape and size of the parquet elements). Place the parquet elements in position within the open time of **Ultrabond S997 1K** and press down slightly to ensure they make good contact with the adhesive. Leave a 1 cm-wide joint around the edge of the floor and around columns or other bodies which pass through the floor.
- **Laying wooden base-boards:** apply **Ultrabond S997 1K** on the back of the baseboard or directly on the substrate. The quantity applied must guarantee that the adhesive is transferred on both the parts to be bonded together. The number of beads required depends on the height of the baseboard. Lay the baseboard within the open time of the adhesive and press it against the wall.



Spreading the adhesive with a Mapei No. 4 trowel



Applying the sheet of mosaic



Pressing the mosaic down well and adjusting it into the correct position

SET TO LIGHT FOOT TRAFFIC

Floors may be set to light foot traffic after approximately 12 hours.

CLEANING

Ultrabond S997 1K may be removed from tools while still "fresh" with alcohol or a special cleaning product. Once hardened, it must be removed mechanically or with **Pulicol 2000**.

Traces of adhesive on pre-finished, varnished parquet must be removed immediately, or at most within 4 hours, with **Cleaner L**.

Hands may be cleaned with **Cleaner H**.

CONSUMPTION

- **Laying wooden stairs:** approximately 2 m² every soft cartridges (diagonal beads 5-10 cm apart).
- **Laying three-layered, pre-finished parquet:** approximately 4-6 m² every soft cartridges (diagonal beads 10-15 cm apart).
- **Laying wooden base-boards:** approximately 15 metres of beads every soft cartridges.
- **Laying decorative parquet mosaic on walls:** extrude the adhesive onto the laying area and spread it evenly on the surface with a No. 4 Mapei trowel. Apply the mosaic and adjust it into position within 10-15 minutes (approximately 0.5 kg/m²).

PACKAGING

Boxes containing 20x600 cc tubes (+3 spare extrusion nozzles).

STORAGE

12 months in its original, well-sealed packaging stored under normal conditions.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Ultrabond S997 1K is not considered hazardous according to current standards and regulations regarding the classification of mixtures. It is however recommended to use gloves, goggles and to take the usual precaution for handling chemicals.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	thixotropic paste
Colour:	ochre yellow
Density (g/cm ³):	1.45 ± 0.05
Dry solids content (%):	98
Brookfield Viscosity (mPa·s):	1,100,000 ± 150,000
EMICODE:	EC1 R Plus - very low emission
APPLICATION DATA (at +23°C and 50% R.H.)	
Application temperature range:	from +10°C to +35°C
Open time (formation of skin):	40 ± 10 min
Adjustment time:	3 hours
Set to foot traffic:	12 hours
FINAL PERFORMANCE	
Shore A hardness (after 7 days at +23°C):	50
Wood-concrete bond strength (N/mm ²):	1.8
Wood-ceramic bond strength (N/mm ²):	1.4
Elongation at failure (7 days at +23°C) (%):	180
In service temperature range:	from -10°C to +70°C

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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