



# Ultrabond P990 1K

**One-component, solvent-free, ready-to-use elastic polyurethane adhesive with an extremely low emission level of volatile organic compounds (VOC), for pre-finished, multi-layered and traditional jointed solid wood parquet**



## WHERE TO USE

Bonding all size and formats of jointed, pre-finished solid wood parquet with a ply backing.

**We advise against laying varnished, pre-finished solid wood in the lower part or traditional solid parquet without tongue and groove.**

## Some application examples

Ultrabond P990 1K is used for bonding pre-finished, lamparquet, pin-wheels and jointed planks on: cementitious screeds; screeds made using **Mapecem**, **Mapecem Pronto**, **Topcem**, **Topcem Pronto** and similar products; old wooden floors; ceramic, marble, etc.; anhydrite screeds.

Suitable for heated floors.

## TECHNICAL CHARACTERISTICS

Ultrabond P990 1K is a moisture curing, polyurethane resin-based adhesive, produced using technology developed in MAPEI's own laboratories, with the following characteristics:

- ready-to-use one-component product, does not require catalyser and successive mixing. If stored correctly, leftover quantities of the product may be used at a later date;
- suitable for floor-layers allergic to epoxy-polyurethane products;
- easy to apply, even at low temperatures;
- 30% higher yield compared with conventional two-component products, thanks to the low viscosity and easy to trowel of the adhesive when applied by trowel, even at low temperatures;
- excellent rib stability and excellent buttering on the back of tiles;

- extremely low expansion, parquet remains flat after laying;
- does not contain solvents or substances which give off unpleasant odours;
- low environmental impact, certified by the GEV (EC1 R Plus) Institut as a product with extremely low emission levels of volatile organic compounds.



## RECOMMENDATIONS

- Before laying, make sure all rooms have suitable windows or other sealing systems.
- The humidity level in the screed must be according to current norms and standards.
- If the substrate is not completely dry, or if the humidity is higher than the recommended level, we recommend applying a coat of suitable waterproofing primer, such as **Eco Prim PU 1K**, **Primer MF**, **Primer MF EC Plus**, etc.
- If there is a risk of rising damp, a vapour barrier must be laid before installing the screed.
- The humidity level in the wood must be according to current norms and standards.
- Do not lay if the temperature is lower than +10°C or higher than +35°C.

# Ultrabond P990 1K



Spreading Ultrabond P990 1K



Laying wood

- Only lay floors if the walls and floors in the room are completely dry.
- In particularly dry weather, the hardening time of the product is longer.
- Do not let the product come into contact with fresh two-component epoxy-primer, otherwise it will deteriorate.
- Non-absorbent surfaces such as ceramic and marble must be sanded or cleaned and then treated with **Primer M**.
- Apply a coat **Primer M** on metallic surfaces.

## APPLICATION PROCEDURE

### Preparation of the substrate

The condition of the substrate must be carefully checked to make it is suitable for laying parquet.

- **Cementitious screeds:** must be well-cured, dry, flat and strong. The surface must be free of dust, crumbly portions, traces of oil, paint, etc. The level of humidity in the screed must be measured with a carbide hygrometer. If the level of humidity is higher than the recommended limit, wait until the screed is dry or apply a special waterproofing primer, such as **Eco Prim PU 1K**, **Eco Prim PU 1K Turbo**, **Primer MF**, **Triblock P**, etc. Substrates which are not sound enough must be removed or, where possible, consolidated with a primer, such as **Eco Prim PU 1K**, **Eco Prim PU 1K Turbo**, **Primer MF**, **Primer MF EC Plus**, **Profas**, etc.

When using epoxy primers such as **Primer MF** and **Primer MF EC Plus**, sprinkle dry 1.2 grain quartz sand on the substrate while the primer is still fresh. The same operation must also be carried out on polyurethane primers if laying is carried out after more than 72 hours. Cracks may be repaired with products such as **Eporip**, **Eporip Turbo**, **Epojet**, etc. Excessively rough or uneven surfaces may be smoothed over with high-strength smoothing and levelling compound, such as **Fiberplan**, **Ultraplan**, **Ultraplan Maxi**, **Nivorapid**, etc. according to the thickness to be applied. Laying may then be carried out once dry (see relative Technical Data Sheet).

Use MAPEI special hydraulic binders to make quick-drying, controlled-shrinkage screeds: **Mapecem**, which allows floors to be laid after only 24 hours, or **Topcem** after 4 days.

As an alternative, use **Topcem Pronto** or **Mapecem Pronto** pre-blended, ready-to-use mortar which allow wooden floors to be laid after 4 days and 24 hours, respectively. If lightened layers or insulating layers are present, or with screeds installed directly on the ground, lay a suitable vapour barrier to avoid rising damp.

- **Existing ceramic, marble, floors, etc.:** must be cleaned and all traces of grease must be completely eliminated before bonding. The adhesive must only be applied once the surface is completely dry. Apply **Primer M** adhesion promoter before bonding.
- **Wooden floors:** make sure old wooden planks are well-bonded to the substrate.

Remove the 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, then lay the flooring.

- Check and follow the instructions of the manufacturer of the screed. Always check if the screed should be sanded and primed. MAPEI recommends sanding and priming. MAPEI declines all responsibilities if all the screed manufacturer's recommendations have not been followed; in case of doubt do not hesitate to contact you local MAPEI's Technical Services.

### Spreading on the adhesive

Open the aluminium bag contained in the plastic drum and spread the contents on the substrate using a MAPEI notched spreader for wood. The adhesive spread on the substrate must be covered with the wooden floor within approximately 110 minutes at a normal temperature (+23°C).

If adhesive from a previously opened pack is used, open the aluminium bag and remove the surface skin before application. The surface skin helps conserve the remaining quantity of the product.

### LAYING THE WOOD

Before laying, the parquet must be stored in a dry, condensation-free area protected against bad weather and must not be left standing directly on the floor.

Before laying, make sure the level of humidity in the wood is within the recommended limits. When laying the parquet, press down firmly to make sure the back is well buttered.

The special rheologic properties of **Ultrabond P990 1K** makes adjustment of the parquet particularly easy after laying.

Leave a 1 cm-wide joint around the edge of the floor and around columns or other bodies which pass through the floor.

Do not apply adhesive to the ends of the parquet strips.

On conventional parquet floors, make sure the adhesive does not seep out from the ends or sides of the strips and avoid leaving traces of adhesive on the floor to avoid the formation of streaks in the joints or stains on the floor.

### Sealing partially used containers

To conserve any remaining product after laying has been completed, remove as much air as possible from the aluminium bag to avoid the formation of surface skin and make sure it is well closed. Seal the bag with a tie or similar system. Put the aluminium bag back into its original plastic drum.

### SET TO LIGHT FOOT TRAFFIC

Floors may be stepped on after approximately 12 hours.

### SANDING PROCESSES

The floor may be sanded after 3 days. Any traces of adhesive on the surface may be easily removed with sandpaper.

### Cleaning

**Ultrabond P990 1K** may be removed from tools while still fresh with alcohol or a special cleaning product. Once hardened, it must be

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

<b>Consistency:</b>	creamy paste
<b>Colour:</b>	beige, brown
<b>Density (g/cm<sup>3</sup>):</b>	1.40
<b>Dry solids content (%):</b>	100
<b>Free monomer (%):</b>	< 1
<b>Brookfield viscosity (mPa·s):</b>	28,000-36,000 (rotor 7 - 50 rpm)
<b>EMICODE:</b>	EC1 R Plus - very low emission

### APPLICATION DATA (at +23°C and 50% R.H.)

<b>Application temperature range:</b>	from +10°C to +35°C
<b>Open time (skin formation):</b>	110 minutes
<b>Adjustability time:</b>	3 hours
<b>Set to light foot traffic:</b>	after 12 hours
<b>Sanding processes:</b>	after 3 days

### FINAL PERFORMANCE (7 days at +23°C)

<b>Shore A hardness:</b>	58
<b>Wood-concrete bond strength (N/mm<sup>2</sup>):</b>	2.5
<b>Wood-ceramic bond strength (N/mm<sup>2</sup>):</b>	1.8
<b>Elongation at breakage (%):</b>	180
<b>In service temperature range:</b>	from -10°C to +70°C

# Ultrabond P990 1K

removed mechanically or with **Pulicol 2000**. Traces of adhesive on pre-finished parquet must be removed within 4 hours with **Cleaner L**. Shades may be removed the day after laying with **Cleaner L**.

## CONSUMPTION

800-1000 g/m<sup>2</sup>.

## PACKAGING

7 kg and 15 kg aluminium bags contained in plastic drums. Boxes containing 2x600 cc soft-cartridges.

## STORAGE

Store **Ultrabond P990 1K** 12 months in its original, well-sealed packaging stored under normal conditions, at a temperature of less than +25°C.

When transported over long distances, thermally insulated containers may be required.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Ultrabond P990 1K** is irritant for the skin and may cause damage to eyes.

The product does not give off harmful fumes at room temperature and under normal application conditions. If used at temperatures higher than +60°C the product may cause sensitisation if inhaled. In the event of sickness seek medical attention. When applying the product it is recommended to use protective gloves and goggles, to wear a safety mask to protect the respiratory system and to work only in well ventilated areas. If the product comes in contact with the eyes or skin wash immediately with plenty of water and seek medical attention.

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.

## 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](http://www.mapei.com)



This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gesellschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



**Our Commitment To The Environment**  
MAPEI products assist Project Designers and Contractors create innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.

**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**



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