

# ULTRABOND P990 1K

One-component, solvent-free, ready-to-use, elastic polyurethane adhesive with very low volatile organic compound (VOC) emissions, suitable for all types of multilayer prefinished parquet and traditional interlocking solid wood floors



## WHERE TO USE

Bonding of interlocking solid wood parquet, prefinished with a multilayer support of any format and wood species.

**It is not recommended to install prefinished solid wood with varnish on the underside or traditional solid wood parquet without interlocking.**

### Some application examples

Ultrabond P990 1K is used for bonding interlocking prefinished parquet, slats, planks, and lamparquet onto:

- cementitious screeds
- screeds made with **Mapecem**, **Mapecem Pronto**, **Topcem**, **Topcem Pronto** and similar
- existing wooden floors
- ceramics, marble, terrazzo floors, etc.
- anhydrite screeds

Suitable also for heating substrates.

## TECHNICAL CHARACTERISTICS

Ultrabond P990 1K is a moisture-curing polyurethane resin-based adhesive; produced according to technology developed in MAPEI laboratories. The product has the following characteristics:

- Ready-to-use, one-component, does not require the addition of hardener and subsequent mixing. Leftover quantities, when stored properly, can be reused for subsequent applications.
- It can also be used by installers who are allergic to epoxy-polyurethane products.
- Easy to apply, even at low temperatures.
- It has a yield that is over 30% higher than traditional two-component products, thanks to the low viscosity and the smooth application of the adhesive under the trowel, even at low temperatures.
- The excellent ridge stability ensures optimal wetting of the back of the wood planks.
- The adhesive's minimal expansion does not affect the flatness of the installed parquet.
- Free from solvents and substances that may give off unpleasant odours.
- Certified by the GEV Institute (ECT Plus) as a product with very low emissions of volatile organic compounds.

## RECOMMENDATIONS

- Before installation, ensure that the rooms are equipped with appropriate windows or other closures.
- The moisture content of the screed must comply with the values prescribed by local regulations.
- If the substrate is not well dry or when the residual moisture exceeds the prescribed levels, it is recommended to use suitable waterproofing primers such as **Eco Prim PU 1K**, **Primer MF**, **Primer MF EC Plus**, etc.
- When there is a risk of rising damp, always install a vapour barrier before applying the screed.
- The moisture content of the wooden floor must comply with the values prescribed by local regulations.
- Do not apply the product at temperatures below +10°C or higher than +35°C.
- Apply the product only if the walls and ceilings of the room are well dry.
- Application in very dry conditions requires longer curing times.
- Avoid contact with fresh epoxy two-component primers, as this causes the product to deteriorate.
- Non-absorbent surfaces, such as ceramic and marble, should be sanded or cleaned and then treated with **Primer M**.
- On metal surfaces, apply **Primer M** beforehand.

## APPLICATION PROCEDURE

### Preparation of the substrate

It is essential to thoroughly inspect the substrate to assess its condition and ensure it is suitable for parquet installation.

#### Cementitious screeds

They must be cured, dry, flat, and mechanically strong.

The surface must be free from dust, loose particles, residues of oils, paints, etc.

The moisture content of the screed should be measured using a carbide hygrometer.

To address issues due to residual moisture exceeding the allowable limit for installation, it is necessary to either wait for the screed to dry or apply suitable waterproofing primers such as **Eco Prim PU 1K**, **Eco Prim PU 1K Turbo**, **Primer MF**, **Triblock P**, etc.

Substrates that are not sufficiently solid should be removed or, where possible, consolidated with primers such as **Eco Prim PU 1K**, **Eco Prim PU 1K Turbo**, **Primer MF**, **Primer MF EC Plus**, **Prosfas**, etc.

When epoxy primers such as **Primer MF** and **Primer MF EC Plus** are used, the substrates should be treated with a dry quartz sprinkle with grain size 1.2 mm while the primer is still fresh. The same operation must be performed on polyurethane primers, if the application is carried out after 72 hours.

Cracks and crevices can be repaired with products such as **Eporip**, **EporipTurbo**, **Epojet**, etc.

Excessively rough or uneven surfaces can be levelled with high-performance smoothing compounds such as **Fiberplan**, **Ultraplan**, **Ultraplan Maxi**, **Nivorapid**, etc., selected based on the required thickness.

Installation can be carried out once drying is complete (see technical data sheets).

For the creation of fast-drying and shrinkage-controlled screeds, use MAPEI's special hydraulic binders:

**Mapecem** which allows installation after 24 hours, **Topcem** after 4 days. Alternatively, use **Topcem Pronto** or **Mapecem Pronto**, ready-to-use premixed mortars that allow wooden floors to be installed after 4 days and 24 hours, respectively.

In the presence of lightweight or insulating layers, and in the case of screeds installed on fill, provide a suitable vapour barrier to prevent rising damp.

#### Existing floors made of ceramics, marble, etc

They must be thoroughly cleaned and degreased before bonding. The adhesive can be applied only when the surface is dry. Apply the adhesion promoter **Primer M** before bonding.

#### Wood floor

Check that the existing floor slabs are well bonded to the substrate. Remove the layer of paint or wax with sandpaper until reaching the wood surface, and vacuum up the dust. Proceed subsequently with bonding.

#### Anhydrite substrates

Verify that the manufacturer's instructions for the screed have been followed, and always check whether the screed requires sanding and subsequent priming. MAPEI recommends sanding and priming. MAPEI disclaims any responsibility if the manufacturer's instructions have not been followed; in case of doubts, please contact Technical Support.

### Spreading the adhesive

Open the aluminium bag contained in the plastic bucket and apply the adhesive to the substrate using a MAPEI notched trowel for wood, covering the area with parquet within approximately 110 minutes under normal temperature conditions (+23°C).

In the case of using partially used packages, open the aluminium bag, remove any skin that may have formed, and proceed as described above. The skin layer preserves the remaining product.

### Installing wood flooring

The parquet to be installed must be stored in a weather-protected, dry environment free from condensation and should be isolated from the ground.

Before applying it, check that the moisture content of the wood is correct.

During installation, apply some pressure to ensure good wetting with the adhesive.

The special rheology of **Ultrabond P990 1K** allows for easy adjustment.

Leave an expansion joint of approximately 1 cm along the perimeter of the flooring, around pillars and other protruding elements.

Do not wet the ends and sides of the planks.

When installing traditional parquet flooring, do not allow the adhesive to seep from the ends or sides of the slats; avoid leaving adhesive residues on the floor, as they may cause discoloration in the joints or staining on the surface.

### Closing partially used packages

To preserve the remaining product after work is completed, seal the aluminium bag tightly, expelling as much air as possible to prevent the formation of a surface skin. Seal the packaging with a zip tie or other equivalent method. Store everything in the original plastic bucket.



Application of **Ultrabond P990 1K**



Installing wood flooring

## SET TO LIGHT FOOT TRAFFIC

The floors are set to light foot traffic after approximately 12 hours.

## FINISHING PROCESSES

Sanding can be done after 3 days. Any adhesive residues present on the surface of the flooring can be easily sanded off.

## CLEANING

**Ultrabond P990 1K** can be removed from tools, while still fresh, with alcohol or specific products. After curing, it must be removed using mechanical means or with **Pulicol 2000**.

Cleaning adhesive residues from prefinished varnished parquet should be done immediately and, in any case, within 4 hours using **Cleaner L**. Any stains can also be removed the day after installation with **Cleaner L**.

## CONSUMPTION

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

## PACKAGING

15 and 7 kg in aluminium bags contained in plastic bucket.  
Cartons containing 20 aluminium sausages of 600 ml.

## STORAGE

Store **Ultrabond P990 1K** for 12 months in the original tightly closed packages under normal conditions at temperatures below +25°C.

Long-distance transport may require the use of thermally insulated containers.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instruction for the safe use of our products can be found on the latest version of the SDS available from our website [www.mapei.com](http://www.mapei.com).

PRODUCT FOR PROFESSIONAL USE.

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

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

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

<b>Recommended application temperature:</b>	from +10°C to +35°C
<b>Open time (skin formation):</b>	110 minutes
<b>Adjustment time:</b>	3 hours
<b>Set to light foot traffic:</b>	after 12 hours

Sanding:

after 3 days

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

Shore A hardness:	58
Wood-concrete adhesion:	2.5 N/mm <sup>2</sup>
Wood-ceramic adhesion:	1.8 N/mm <sup>2</sup>
Elongation at failure:	180%
Service temperature:	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.*

**Please refer to the current version of the Technical Data Sheet, available from our website [www.mapei.com](http://www.mapei.com)**

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