



# Ultrabond P990 1K

**Ready-to-use polyurethane one-component, solvent-free, elastic adhesive for all types of wooden flooring**



## WHERE TO USE

The bond of all sizes and types of wooden flooring.

## Some application examples

**Ultrabond P990 1K** is used for bonding all types of wooden flooring including prefinished parquet laminates, small and large sized planks, wood mosaics and blocks, onto cementitious and anhydrite screeds, **Mapecem, Mapecem Pronto, Topcem, Topcem Pronto** screeds and similar; existing wood flooring, ceramic tiles, marble, terrazzo tiles, and is also suitable for use with underfloor heating systems.

## TECHNICAL CHARACTERISTICS

**Ultrabond P990 1K** is an adhesive based on hydro-hardening polyurethane resin prepared to technology developed in the MAPEI research laboratories and has the following characteristics:

- it is a ready-to-use one-component adhesive that does not require remixing and if stored correctly, can be reused for other applications;
- it can also be used by installers that are allergic to epoxy-polyurethane products;
- easy application in hot weather and at low temperatures;
- good ridges stability and easy adjustability of the wood during laying;
- has a 20-30% lower consumption rate than traditional two-component products and because of its low viscosity it is easily trowelled;

- the low expansion of the adhesive will not alter the flatness of the installation;
- contains no solvents or substances that emit unpleasant odours;
- **Ultrabond P990 1K** forms an elastic acoustic layer that reduces impact transmission through the floor, reducing noise levels.



## RECOMMENDATIONS

- During the installation the area should be well ventilated.
- The moisture level of the substrate should be within the recommended levels for the installation of wooden flooring. Where the levels are above, due to residual or static moisture, it is recommended that a vapour-barrier membrane such as **Eco Prim PU 1K, Primer MF** etc., be installed prior to the wood flooring installation.
- Where there is a danger of rising damp, a base DPM in the form of a polythene sheet should be installed before preparing the screed.
- The moisture value of the wood should be within the recommended level.



# Ultrabond P990 1K

- The installation should be carried out at temperatures between +10°C and +35°C.
- Install only if the walls and ceilings of the area are dry.
- If applied in dry climatic conditions, the setting time will be longer.
- Contact with wet two-component adhesive should be avoided, as this will deteriorate the product.
- A primer is not necessary on non-porous surfaces such as ceramic tiles; normal adhesion promoters could be incompatible with **Ultrabond P990 1K**.

## APPLICATION PROCEDURE Preparing the substrate

The substrate should be checked to ensure it is suitable for the installation to proceed.

- **Cementitious screeds:** must be dry, flat and sound, the surface must be free of dust, loose particles, oil residues, paints, etc. The substrate should be checked to determine moisture levels, using the relevant acceptable testing method. If the residual moisture is higher than the acceptable level, the screed should be allowed to dry out completely or a surface membrane such as **Eco Prim PU 1K**, **Primer MF** or **Triblock P** system should first be installed. Substrates that are not solid enough should be removed or, where possible, consolidated with a primer such as **Eco Prim PU 1K**, **Prosfas**, **Primer MF**, **Primer EP**, **Primer PU60**, etc. Cracks can be repaired with products such as **Eporip**, **Eporip Turbo**, **Epojet**, etc. Rough or uneven surfaces should be smoothed using a levelling compound with a high mechanical strength, such as **Ultraplan**, **Fiberplan**, **Ultraplan Maxi**, **Nivorapid**, etc. and chosen in relation to the thickness required. Installation can continue once the product has dried (see technical data sheet). To create fast drying and shrinkage compensated screeds, special MAPEI hydraulic binders can be used: **Mapecem**, which permits installation after 24 hours, **Topcem**, after 4 days.

As an alternative, **Topcem Pronto** or **Mapecem Pronto** may be used. They are ready-to-use pre-mixed mortars which permit wood installation after, 4 days and after 24 hours respectively.

- **Existing ceramic tile, marble, etc. flooring:** they must be clean with any grease removed and the surface dry before the adhesive is applied. *Do not apply any adhesion promoter (like for ex. **Primer KL**) before bonding - the two products are not compatible.*
- **Wooden flooring:** the existing flooring should be well secured and firm. Any wax, varnish or paint must be removed by abrading back to clean wood and the area vacuumed to remove any dust and loose particles.
- **Anhydrite screeds:** after abrading and vacuuming off the dust, apply **Eco Prim PU 1K**, **Primer MF** or **Primer EP**. Sand it whilst fresh and the day after, when completely hardened, take off the remaining loose dust, and then proceed with bonding.

## Applying the adhesive

Open the sealed aluminium bag contained within the bucket; the adhesive may then be spread using the Mapei notched trowel for wood.

Only apply sufficient adhesive that can be laid into within 110 minutes (at a temperature of +23°C).

When opened packaging is used, please open the aluminium sack, remove the skin when formed and proceed as described above. The skin substrate protects the remaining product.

## INSTALLING THE WOOD

The wood to be installed must be stored in a dry place protected from bad weather and not subject to vapour condensation. It must be insulated from the ground.

Before installing check that the moisture content of the wood is correct.

During installation pressure should be applied to ensure the adhesive wets the back of the wood.

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



Ultrabond P990 1K packaging



Opening the aluminium bag and folding it over the bucket



The adhesive is poured onto the screed



Cleaning off the bucket with a trowel



Applying the adhesive



Closing the packaging with the suitable band

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

<b>Consistency:</b>	creamy paste
<b>Colour:</b>	beige, brown
<b>Density (g/m<sup>3</sup>):</b>	1.50
<b>Dry solids content (%):</b>	100
<b>Free monomer (%):</b>	< 1
<b>Brookfield Viscosity (mPa·s):</b>	43,000 (7 shaft - 50 RPM)
<b>Storage:</b>	12 months
<b>Hazard classification according to EC 1999/45:</b>	harmful. Before using refer to the "Safety instructions for the preparation and application" paragraph and the information on the packaging and Safety Data Sheet
<b>Customs class:</b>	3909 50 00

### 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>Polishing:</b>	after 3 days

### FINAL PERFORMANCES

<b>Shore-A-Hardness (7 days at +23°C):</b>	58
<b>Adhesion (pull out) wood - concrete (N/mm<sup>2</sup>):</b>	2.5
<b>Adhesion (pull out) wood - ceramic (N/mm<sup>2</sup>):</b>	1.8
<b>Elongation at break (7 days at +23°C) (%):</b>	180
<b>Temperature when in use:</b>	from -10°C to +70°C



An alternative method for using the packaging: cutting the interior edge



Extracting the adhesive from the interior edge



Closing the packaging with the suitable band



Installing parquet

# Ultrabond P990 1K



A 1 cm joint should be left around the perimeter of the flooring and around any columns or other protruding parts. During installation, avoid the overflow of adhesive in the joints in order not to dirty the surface. Never bond the sides of the wood. In case of traditional laying the bonding of the heads must be carried out with vinyl adhesives, such as **Adesilex LC/R**.

#### Preserving unused adhesive

To preserve any unused adhesive, the aluminium bag must be resealed using the band provided and placed in its original bucket, after letting out as much air as possible in order to avoid the formation of a surface film.

Where a film has formed, this should be removed prior to the adhesive being used.

#### READY FOR LIGHT FOOT TRAFFIC

Floors can allow light foot traffic after approximately 12 hours.

#### POLISHING

The floors can be polished after 3 days. Any residual adhesive on the floor surface can be easily removed by sandpapering.

#### Cleaning

Whilst still fresh **Ultrabond P990 1K** can be removed from tools with alcohol or special products; once hardened it can be removed by mechanical means or with **Pulicol**.

Cleaning of the remaining adhesive from the pre-finished varnished wooden substrate must be carried out immediately, within 4 hours, with **Cleaner L**. Some marks can be removed the day after the installation, by using **Cleaner L** and sawdust.

#### CONSUMPTION

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

#### PACKAGING

15 and 7 kg aluminium bag contained in a plastic bucket.  
Cartons containing 20 soft alu cartridges of 600 cc.

#### STORAGE

12 months in original sealed packaging and stored in normal conditions.

#### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Ultrabond P990 1K**, in contact with the eyes could cause serious eye damage. This product does not give out harmful vapours when in room temperature and in normal installation conditions. In high temperatures (> +60°C) small quantities of isocyanate may form, which could provoke allergic reactions to those predisposed. Protect the eyes and avoid inhaling the vapour. In the case of any incident please consult a doctor. For further information refer to the Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

#### WARNING

*Although the technical details and recommendations contained in this 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 applications: 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.*

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