MAPEI

Ultrabond Eco S945 1K

Single component, isocyanate and solvent-free, sililated polymer-based adhesive with a very low emission of volatile organic compounds (EMICODE EC1 R), for multi-layer pre-finished parquet

WHERE TO USE

Bonding wooden parquet and all types and formats of multi-layer pre-finished materials (EN13489).

Some application examples

Ultrabond Eco S945 1K is used for bonding multi-layer pre-finished parquet on: cementitious screeds, screeds made using **Mapecem**, **Mapecem Pronto**, **Topcem**, **Topcem Pronto** and similar products, old wooden floors, ceramic, marble, terrazzo, etc. and anhydrite screeds. It is also suitable for heated substrates.

TECHNICAL CHARACTERISTICS

Ultrabond Eco S945 1K is a single component, sililated polymer-based adhesive without water, solvents, amines, isocyanates and epoxy resin, with an extremely low emission level of volatile organic compounds (EMICODE EC1 R). It is manufactured according to technology developed in MAPEI's own research laboratories and has the following characteristics:

- single component, ready-to-use product; no catalyst is required, therefore no mixing. If stored correctly, remaining quantities of the product may be used again at a later date;
- suitable for use by installers who are allergic to epoxy and epoxy-polyurethane products;
- GEV certified, as a product with a very low emission of volatile organic compounds (EMICODE EC1 R);
- no hazard risks;
- easy to apply with excellent ridge holding;
- 20-30% more yield compared with conventional two-component adhesives, thanks to its low viscosity and free-flowing properties when applied by trowel;
- totally free of solvents and isocyanates;
- easy to remove from hands and pre-finished elements.

RECOMMENDATIONS

- Before installation commences, the windows should be sealed.
- The humidity level in the screed must be compliant with that prescribed by the current standards for the installation of wood, and as indicated in the technical data sheet for the parquet.
- If the substrate is not thoroughly dried, or if the residual humidity is higher than the level prescribed, we recommend the use of a suitable waterproofing primer, such as **Eco Prim PU 1K**, **Primer MF**, etc.
- If there is a risk of rising damp, a vapour barrier must be installed before laying the screed.

Ultrabond Eco S945 1K

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	creamy paste
Colour:	beige or brown
Density (g/cm³):	1.60
Dry solids content (%):	100
Brookfield viscosity (mPa·s):	33,000 ± 5,000 (rotor 7 - 50 RPM)
Storage:	12 months
Hazard classification according to EC 1999/45:	none. Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packaging and Safety Data Sheet
EMICODE:	EC1 R - very low emission
Customs class:	3506 91 00
APPLICATION DATA (at +23°C and 50% R.H.)	
Recommended application temperature range:	from +10°C to +35°C
Open time (formation of surface skin):	45-60 mins
Adjustment time:	1 hour and 45 minutes-2 hours
Set to light foot traffic:	approx. 12 hours
Polishing:	after 3 days
FINAL PERFORMANCE	
Shore A hardness (7 days at +23°C):	45
Wood - concrete bond (N/mm²):	1.5
Wood - ceramic bond (N/mm²):	1.5
Elongation at breakage (7 days at +23°C) (%):	150
In service temperature range:	from -20°C to +80°C

- Do not use **Ultrabond Eco S945 1K** if the temperature is lower than +10°C or higher than +35°C.

- Only carry out the installation if the walls and ceiling are thoroughly dried.

APPLICATION PROCEDURE

Preparation of the substrate

The substrate must be checked carefully to assess its condition, and to prepare it for laying parquet.
Cementitious screeds: must be well cured, dry, flat and mechanically strong.
The surface must be free of dust, loose parts, oil, paint, etc.
The level of humidity in the screed must be measured using a carbide hygrometer. To solve problems of residual humidity levels higher than those prescribed for laying, wait until the screed is dry, or apply a suitable waterproofing primer, such as **Eco Prim PU 1K**, **Primer MF**, **Primer EP**, **Primer PU60**, **Triblock P**, etc.
Cracks in the substrate must be repaired beforehand with a product such as **Eporip**, **Eporip Turbo**, **Epojet**, etc.
Excessively rough or uneven surfaces should be levelled using a smoothing compound with high mechanical properties, such as **Fiberplan**, **Ultraplan**, **Ultraplan Maxi**, **Nivorapid**, etc., chosen according to the thickness to be installed. Installation may be carried out once it has cured (see the relative product technical data sheet).
To install rapid-drying, controlled-shrinkage screeds, use a special MAPEI hydraulic binder: **Mapecem**, which allows for installation after 24 hours, or **Topcem** for installation after 4 days.
Topcem Pronto or **Mapecem Pronto** pre-blended, ready-to-use mortar may be used as an alternative, and wood may be laid after 4 days and 24 hours, respectively.
In the presence of lightening layers or insulation, or in the case of screeds installed directly on the ground, a vapour barrier must be installed to avoid rising damp.
Old floors in ceramic, marble, etc. must be carefully cleaned and degreased before bonding. The adhesive may only be applied once the surface is dry.
Wooden floors: make sure wooden floorboards are rigidly fixed to the substrate. Remove old paint or wax with sandpaper down to the bear wood, and remove all dust. The adhesive may then be applied.
Anhydrite substrates: after sanding down and removal of all residual dust, apply **Eco Prim PU 1K**, **Primer MF** or **Primer EP** and blind with sand while still wet. The following day, once it has completely hardened, remove all loose sand and apply the adhesive.

Spreading the adhesive

Open the aluminium bag contained in the plastic tub and spread the adhesive on the substrate using a MAPEI notched trowel for wood. Apply only the amount of adhesive which is to be covered within approximately 45 minutes under normal temperature conditions (at +23°C and 50% R.H.). If left-over adhesive from previous applications is to be used, open the aluminium bag, remove the skin formed on the surface of the adhesive and proceed as above. The layer of skin helps to preserve the left-over adhesive.

LAYING PARQUET

The parquet to be laid must be stored in a well-protected, dry area in the original packaging supplied by the manufacturer, it must not be subjected to condensation and must not be stored directly on the ground. The level of humidity in the wood must comply with the levels indicated by the manufacturer on the technical data sheet. When laying, press down firmly to make sure the adhesive is well applied to all the wood. The special rheologic properties of **Ultrabond Eco S945 1K** makes final adjustment easy. Leave a joint approximately 1 cm wide around the perimeter of the floor and around columns and other protruding points. Make sure that adhesive does not seep through the joints to avoid dirtying the surface.

Sealing partially-used containers

In order to conserve unused quantities of the product, remove as much air as possible from the aluminium bag to avoid the formation of surface skin, and seal it well. Use a plastic tie or other similar system to form a good seal. Place the bag in the original plastic tub.

SET TO LIGHT FOOT TRAFFIC

Floors may be walked on after approximately 12 hours.

POLISHING

The floor may be polished after 3 days. Residual adhesive on the surface of the floor may be easily removed by using **Cleaner L**.

Cleaning

Ultrabond Eco S945 1K may be removed using **Cleaner L** or other special cleaning solutions while still fresh. Once hardened, it must be removed mechanically or with **Pulicol**.

CONSUMPTION

800-1200 g/m^2.

PACKAGING

15 kg aluminium bags contained in plastic drums.

STORAGE

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

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Ultrabond Eco S945 is not considered as dangerous according to the European regulation redarding the classification of preparations. It is however recommended to

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use gloves, eyes protection and to take the usual precaution taken when handling chemical products are recommended. The Safety Data Sheet is available upon request for professional users.

PRODUCT FOR PROFESSIONAL USE.

WARNING

While the indications and guidelines contained in this data sheet correspond to the company's knowledge and wide experience, they must be considered, under all circumstances, merely as an indication and subject to confirmation only after long-term, practical applications. Therefore, anybody who undertakes to use this product, must ensure beforehand that it is suitable for the intended application and, in all cases, the user is to be held responsible for any consequences deriving from its use.

This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gemeinschaft 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
More than 150 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

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