WHERE TO USE

Hard set, highly shear resistant, wet-bed dispersion adhesive, specific for PVC and rubber floorings and wall coverings on absorbent substrates. Also suitable as universal adhesive for all common resilient and textile floor covering types.

For use on floors and walls in interior applications.

Suitable on:
- level and absorbent surfaces;
- underfloor heating systems.

It can be used for:
- static and dynamic loads, including intense load, in residential, commercial and industrial sectors (e.g. in hospitals, shopping centers, airports, etc.);
- stresses from chair castors according to EN 12529.

Some application examples

Use Ultrabond Eco VS90 Plus for bonding:
- sheet and tile rubber flooring with smooth or textured surfaces;
- homogeneous and heterogeneous PVC floor coverings, sheets and tiles;
- PCV and multilayer PVC floor coverings;
- LVT (Luxury Vinyl Tiles).

Also suitable as universal adhesive for bonding:
- textile floor coverings with all common backings (latex-primed, PVC and polyurethane foam, natural jute and Action-Bac® backed carpets, etc.);
- needle-punch woven flooring also in latex;
- flocked flooring;
- semi-flexible vinyl floor tiles (VCT);
- linoleum with natural jute backing;
- polyurethane, polyolefin and synthetic back linoleum flooring;
- polyolefin-based and chlorine-free floor coverings;
- PUR floor coverings;
- PVC and rubber wall coverings.

TECHNICAL CHARACTERISTICS

Ultrabond Eco VS90 Plus is a solvent free, acrylic adhesive in water dispersion, formulated in a ready to use light beige paste. Characterised by a fast and strong initial grab and a rapid set, as well as a rigid and cohesive final film, it gives the floor coverings a very good dimensional stability.

Product properties:
- very easy to apply;
- little to no waiting time;
- excellent wetting even with difficult covering;
- rapid set development;
- very good peel strength;
- highly shear resistant;
### TECHNICAL DATA (typical values)

#### PRODUCT IDENTITY
- **Consistency:** creamy paste
- **Colour:** beige
- **Density (g/cm³):** 1.25
- **pH:** 8
- **EMICODE:** EC1 Plus - very low emission
  RAL-UZ 113
  For further information please refer to the Material Safety Data Sheet
- **Blauer Engel:** RAL-UZ 113

#### APPLICATION DATA (at +23°C - 50% R.H.)
- **Application temperature range:** from +15°C to +35°C
- **Waiting time:** 0-10 minutes
- **Open time:** 20-30 minutes
- **Set to light foot traffic:** 3-5 hours
- **Ready for use:** 24-48 hours

#### FINAL PERFORMANCE DATA
- **PEEL 90° adhesion test according to EN 1372 (N/mm):**
  - homogeneous PVC:
  - heterogeneous PVC:
  - smooth rubber:
  - linoleum:
  - carpet with Action Bac®:
    - in compliance with EN 14259

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- very good dimensional stability;
- prevents open joints;
- exposure to castor wheels in accordance with DIN EN 12529;
- solvent free;
- non-flammable;
- EMICODE EC1 Plus (very low emission);
- Blauer Engel - RAL UZ 113;
- harmless to the health of the installer and the end-user.

### RECOMMENDATIONS
- Install in recommended temperatures, normally between +15°C and +35°C.
- Do not install on substrates not protected from rising damp.
- Use Adesilex G19 or Adesilex G20 in the event of extreme temperatures due to solar radiation, intense mechanical stress by lift truck, forklift, etc. or moisture from above (in particular when the floor coverings are not welded or sealed).
- In case of multilayer cork planks with PVC backing, use Ultrabond Eco 310.

### APPLICATION PROCEDURE
#### Preparing the substrate
Substrates must be dry, absorbent, level, sound, mechanically strong, free of dust, loose particles, cracks, paints, wax, oil, rust, traces of gypsum or other products that can interfere with bonding.

On non-absorbent substrates, apply a smoothing compound to a minimum thickness of 2 mm.

Commonly, the moisture content must be max 2%-2.5% for cementitious substrates, max. 0.5% for gypsum or anhydrite-based substrates.

The regulations of each country must be strictly followed.

It is essential to make sure there is no rising damp present. Unbonded screeds laid over lightweight concrete or over insulation and screeds laid directly onto earth must be separated by a vapour barrier to prevent rising damp.

To repair cracks in the substrate, consolidate and waterproof screeds, form new fast-drying screeds and level uneven substrates, please refer to the relevant technical documentation or contact the MAPEI Technical Services Department.

#### Acclimatisation
Before starting the installation, make sure that the floor or wall covering and
the substrate are acclimatised to the recommended temperatures and R.H.

**Spreading the adhesive**

*Ultrabond Eco VS90 Plus* is ready to use and does not need any preparation. Before using, stir the adhesive in the bucket. Apply the adhesive evenly to the substrate with a suitable notched trowel.

When spreading the adhesive, a long nap roller may be used as an alternative (ensure the wetting of the backing material).

**Installing the flooring**

Follow the manufacturer's instructions

Leave a waiting time according to the application quantity, climatic conditions, substrate absorbency and type of covering. Only apply as much adhesive as can be covered within the open time and with good transfer to the backing of the covering.

Lay the floor covering whilst still wet: the adhesive ridges has to be impressed. Take care to avoid air pockets and carefully rub the floor covering down to ensure good adhesive transfer to the backing. Avoid excessive stress at the seams. After some minutes installing the floor covering, it is always necessary to carefully roll it down again or to firmly rub it down.

**Cleaning**

While still wet, *Ultrabond Eco VS90 Plus* can be cleaned from floor coverings, tools, hands and clothing with water. When dry, clean with alcohol or a suitable solvents.

**Consumption**

Consumption varies with uniformity of substrate, the back of the flooring and type of trowel used.

- MAPEI trowel no. 1: approx. 250-300 g/m²
- MAPEI trowel no. 2: approx. 350-450 g/m²
- Notch TKB A1/A2: approx. 200 g/m²
- Notch TKB B1: approx. 300-350 g/m²
- Notch TKB B2: approx. 350-450 g/m²

**Packaging**

*Ultrabond Eco VS90 Plus* is available in 16 kg drums.

**Storage**

Under normal conditions, *Ultrabond Eco VS90 Plus* is stable for at least 12 months in its original sealed packaging. Protect from frost.

**Safety Instructions for Preparation and Application**

*Ultrabond Eco VS90 Plus* is not considered dangerous according to the current regulation regarding the classification of mixtures. It is recommended to wear protective gloves and goggles and to take the usual precautions 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.

Keep out of reach of children. Ensure good ventilation during and after application and drying. Avoid eating, drinking or smoking while processing this product. In case of contact with eyes or skin rinse immediately with plenty of water. Do not allow product to reach sewage system or any water course. Do not allow to penetrate the ground/soil. Clean tools with soap and water immediately after use. Only properly emptied containers may be recycled. Dried product residues can be disposed of as normal household waste. Product contains: MIT / BIT (1:1) and CIT/MIT (3:1).

For information for allergic people, please call at +39/02/37673.1.

**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

This symbol is a conformity mark which proves that the product is suitable for marine equipment in compliance with the Marine Equipment Directive (MED) 95/95/EC and subsequent amendments. For the products with this marking, MAPEI is also allowed to affix the U.S Coast Guard approval number as allowed by the “Agreement between the European Community and the United States of America on mutual recognition of certificates of conformity for marine equipment” signed February 27th, 2004.

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 Verlagewerksstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.

This symbol is a conformity mark which proves that the product is suitable for marine equipment in compliance with the Marine Equipment Directive (MED) 95/95/EC and subsequent amendments. For the products with this marking, MAPEI is also allowed to affix the U.S Coast Guard approval number as allowed by the “Agreement between the European Community and the United States of America on mutual recognition of certificates of conformity for marine equipment” signed February 27th, 2004.

“Der Blaue Engel” is a German mark of ecological quality used to identify products which respect the environment, contractors and end users. MAPEI products carrying this logo have been tested according to strict criteria defined by the German standard RAL-UZ 113 and, because they are all with very low emission of volatile organic compounds, also offer advantages for the environment and public wellbeing.

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