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;
- PVC 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 an 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;
- very good dimensional stability;
TECHNICAL DATA (typical values)

PRODUCT IDENTITY

<table>
<thead>
<tr>
<th>Consistency:</th>
<th>creamy paste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>beige</td>
</tr>
<tr>
<td>Density (g/cm³):</td>
<td>1.25</td>
</tr>
<tr>
<td>pH:</td>
<td>8</td>
</tr>
</tbody>
</table>

- EMICODE: EC1 Plus - very low emission
- Blauer Engel: RAL DE-UZ 113

For further information please refer to the Safety Data Sheet

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

<table>
<thead>
<tr>
<th>Application temperature range:</th>
<th>from +15°C to +35°C</th>
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</thead>
<tbody>
<tr>
<td>Waiting time:</td>
<td>5-10 minutes</td>
</tr>
<tr>
<td>Open time:</td>
<td>20-30 minutes</td>
</tr>
<tr>
<td>Set to light foot traffic:</td>
<td>3-5 hours</td>
</tr>
<tr>
<td>Ready for use:</td>
<td>24-48 hours</td>
</tr>
</tbody>
</table>

FINAL PERFORMANCE DATA

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

- prevents open joints;
- exposure to castor wheels in accordance with DIN EN 12529;
- non-flammable;
- EMICODE EC1 Plus (very low emission);
- Blauer Engel - RAL DE-UZ 113;

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).

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 suitable MAPEI smoothing compound to a minimum thickness of 3 mm.

A British Standard approved test should give a reading of 75% RH or less, if this has not been achieved the use of a MAPEI Surface Membrane will suppress residual / static moisture in a power floated concrete slab or sand/cement screed, provided that a base dpm has been incorporated.

For gypsum and anhydrite substrates the maximum humidity level should be 0.5% as measured with a carbide hygrometer, and in all cases, no higher than the level recommended by the manufacturer of the floorcovering.

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 installing thin wall coverings, 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.

Note: waiting and open time may vary depending on temperature, relative humidity and absorbency of the substrate. They will be shorter at higher temperatures and lower humidity, but longer at lower temperatures, higher humidity and with low absorbent substrates.

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
- Roller: approx. 200 g/m²
- Notch TKB A1/A2: approx. 200-300 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 5 kg and 15 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 Safety Data Sheet.

Keep out of the reach of children. Ensure good ventilation during and after use and drying. Do not eat, drink or smoke when using this product. In case of contact with skin or eyes, rinse immediately with plenty of water. Do not allow product to reach sewage system, water course or soil. Clean tools with soap and water immediately after use. Give only empty containers to recycling. Dried product residues may be disposed of as domestic waste. Product contains: BIT and CIT/MIT (3:1); For information for allergic people or the technical data sheet, please call: 0121 508 6970.

The product contains:
- dispersion vehicle, mineral fillers, binders, plasticizer, additive, preservatives (Vdl-RL 01/June 2018).

PRODUCT FOR PROFESSIONAL USE.

N.B.
Whilst we try to ensure that any advice, recommendations or information given in our literature is accurate and correct, we have no control over the circumstances in which our product is used. It is therefore important that the end users satisfy themselves that the product and conditions are suitable for the envisaged application. No warranty can be given or responsibility accepted other than, that the product supplied by us will meet our written specification. End users should ensure that our latest product data and safety information sheets have been consulted prior to use.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.co.uk

All relevant references for the product are available upon request and from www.mapei.co.uk