



MAPEI

Ultrabond Eco V4 SP Conductive



Light-coloured adhesive in water dispersion with very low emission of volatile organic compounds (VOC) for conductive flooring



WHERE TO USE

Bonding of conductive vinyl, rubber and textile floor coverings in interiors.

Some application examples

Use **Ultrabond Eco V4 SP Conductive** for bonding:

- conductive vinyl or static-dissipative flooring in all areas where discharges of static electricity could cause explosions or disturb electrical and electronic equipment, e.g. surgical rooms, chemical laboratories and factories, areas containing electronic instruments, data processing centres, etc.;
- conductive or static-dissipative rubber floors;
- conductive needlepunch and carpet flooring

ON

all absorbent and moisture-stable substrates normally used in building.

TECHNICAL CHARACTERISTICS

Ultrabond Eco V4 SP Conductive is a synthetic resin based adhesive in water dispersion with special fibres that ensure electrical conductivity, formulated in an easily trowelable light grey paste.

Ultrabond Eco V4 SP Conductive is not inflammable with very low emission of volatile

organic compounds (EMICODE EC1 Plus), so it is absolutely harmless to the health of the installer and the end-user. It can therefore be stored with no special precautions.

Ultrabond Eco V4 SP Conductive has high early grab and after a waiting time that varies from 0 to 10 minutes (at +23°C) is ready for installing any type of rubber or PVC flooring, as long as the substrate is absorbent. The maximum open time is approximately 15 minutes at +23°C.

When dry, after about 24 to 48 hours, the **Ultrabond Eco V4 SP Conductive** film is flexible and bonds strongly with good cohesion.

RECOMMENDATIONS

- To install conductive flooring which does not allow vapour transmission on non-absorbent surfaces use **Adesilex G19 Conductive** or **Adesilex VZ Conductive**.
- Do not use at temperatures below +15°C or above +35°C (follow the floor covering manufacturer's installation instructions).
- Do not use on substrates subject to rising damp.

APPLICATION PROCEDURE

Preparing the substrate

The substrate must be uniformly dry, absorbent,



Ultrabond Eco V4 SP Conductive



Spreading Ultrabond Eco V4 SP Conductive



Laying conductive PVC tiles with Ultrabond Eco V4 SP Conductive

flat, sound, mechanically strong, free of dust, loose particles, paint, wax, oils, rust, gypsum residues or any other materials that may interfere with bonding, and be free of cracks.

Check moisture content throughout the entire thickness of the substrate with a carbide or electric hygrometer, keeping in mind that the latter gives only approximate values.

The moisture content must be as follows: a maximum of 2.5 to 3% for cementitious substrates and 0.5% for gypsum or anhydrite based substrates.

It is essential to make sure that no rising damp is present.

Unbonded screeds laid over light-weight concrete, or over layers of insulation and screeds laid directly onto earth must be carried out over a vapour barrier to prevent rising damp.

To repair cracks in the substrate, consolidate screeds, form fast-drying screeds and level uneven substrates, it is recommended to refer to the section in the MAPEI catalogue concerning the preparation of substrates or contact the Technical Advisory Department.

Acclimatising

Before installing, make sure that the flooring, the adhesive and the substrate are acclimatised to the recommended temperature.

Several hours before installation the floor covering should be removed from its wrapping and unrolled, or at least loosened, to acclimatise it and reduce the tensions caused by the packaging.

Equipotential earth contact

Equipotential earth contact (earthing) should be done in compliance with regulations (CEI, DIN, AMSO, NFPA, ANSI, etc.). Spread the **Ultrabond Eco V4 SP Conductive** to bond the copper strips (0.08 to 0.10 mm thick and 10 to 25 mm wide) of the conductive grid to the substrate. Alternately, **Adesilex VZ Conductive** can be used. Test the conductivity of the grid before installing the flooring.

Spreading the adhesive

Stir the **Ultrabond Eco V4 SP Conductive** in the bucket thoroughly, in order to achieve a homogeneous distribution of the conductive fibres. Then apply it on the substrate evenly with a suitable notched trowel (MAPEI No. 2 or Pajarito 779E/21/151) in sufficient quantity as to wet the back of the flooring completely. Waiting time varies from 0 to 10 minutes at approx. +23°C, depending on the

absorbency of the substrate and environmental temperature and humidity.

Installing the floor covering Follow the manufacturer's installation instructions.

After the waiting time has elapsed, the flooring must be installed within the open time of the adhesive, i.e. maximum 15 minutes, depending on the type of substrate and ambient temperature and humidity.

Press the surface of flooring immediately with a wooden trowel (or similar) or roller from the centre toward the edges in order to ensure total transfer of the adhesive and eliminate air bubbles.

Deformed flooring may need further pressing.

READY FOR USE

The floor is set to light foot traffic in several hours, depending on the temperature, the absorbency of the substrate, and the porosity of the flooring. Complete setting occurs after approx. 24 to 48 hours.

Cleaning

While still wet, **Ultrabond Eco V4 SP Conductive** can be removed from flooring, tools, hands and clothing with water. Once dry it can be removed with alcohol or with **Pulicol 2000**.

CONSUMPTION

Consumption varies according to the uniformity of the substrate and the back of the floor covering:
approx. 0.3 to 0.4 kg/m².

PACKAGING

Ultrabond Eco V4 SP Conductive is available in 16 kg buckets.

STORAGE

Protect from frost during transit and storage.

Avoid prolonged exposure to temperatures below 0°C.

Under normal conditions **Ultrabond Eco V4 SP Conductive** is stable for at least 12 months in its original sealed packaging.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Ultrabond Eco V4 SP Conductive is not hazardous according to the regulations norms on the classification of mixtures. It is recommended to take the usual precautions for handling chemical products.

For further and complete information about a safety use of our product please refer to our latest version of the Material Safety Data Sheet.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Consistency:	creamy paste
Colour:	light grey
Density (g/cm³):	1.05
pH:	7.5
Dry solids content (%):	70
Brookfield viscosity (mPa·s):	300,000 (Helipat E - 5 rpm)
EMICODE:	EC1 Plus - very low emission

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

Application temperature range:	from +15°C to +35°C
Waiting time:	from 0 to 10 minutes
Open time:	15 minutes
Set to light foot traffic:	after 2 to 4 hours
Ready for use:	after approx. 24 to 48 hours

FINAL PERFORMANCE DATA

Electrical resistance:	R = 20,000 ohms
Resistance to moisture:	good
Resistance to ageing:	excellent
Resistance to solvents and oils:	fair
Resistance to acids and alkalis:	good
Resistance to wheeled chair stress:	good
Underfloor heating systems:	suitable
Peel 90° adhesion test according to EN 1372 standards (N/mm): – conductive PVC:	1.5

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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 used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gesellschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



"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 solvent-free 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**



BUILDING THE FUTURE