

Ultrabond MS Rapid

**Hybrid assembly
adhesive for internal
and external use**



WHERE TO USE

Ultrabond MS Rapid is a one-component, deformable, thixotropic adhesive with a high modulus of elasticity made from silitated polymers, characterised by its high initial tack (“sucker effect”) and rapid final hardening. It is recommended, therefore, for those bonds where a strong initial tack and high mechanical strength are required after a short curing time.

Its rapid polymerisation and compatibility with most absorbent and non-absorbent building materials, including damp ones, make **Ultrabond MS Rapid** a practical, easy to apply product to replace or integrate traditional mechanical fasteners when constructing and assembling components and fittings used in the building sector and in industry.

Suitable for bonding internal and external window ledges, balconies, stone sills, skirting, parquet, wooden and plastic cable trunking, insulating and soundproofing panels, pantile roofing tiles, dressings around doors and walls, panelling and prefabricated elements.

Specifically recommended for bonding **Idrostop Soft** hydro-expansive bentonite jointing strip for waterproofing second pours and for sealing through elements in concrete.

Some application examples

Recommended for bonding and assembling a wide range of materials including:

- cement and cement-derived materials;
- bricks;
- stone;
- wood and wood-derived materials;
- metals;

- painted surfaces in general;
- ceramics;
- glass;
- rigid and flexible plastics*;
- **Idrostop Soft** hydro-expansive bentonite jointing strip.

* contact the MAPEI Technical Services Department prior to use.

TECHNICAL CHARACTERISTICS

Ultrabond MS Rapid is a highly viscous, highly thixotropic adhesive made from silitated polymers, therefore with no silicone and isocyanates, developed in the MAPEI Research & Development laboratories. Compared with polyurethane products, **Ultrabond MS Rapid** guarantees:

- compatibility with damp substrates;
- easier extrusion, particularly at low surrounding temperatures;
- more rapid surface hardening;
- longer shelf life;
- traditional plastic cartridges may be used.

Compared with neutral silicone products, **Ultrabond MS Rapid** offers:

- better adhesion to compact and/or absorbent building materials;
- higher initial “sucker effect”;
- no “stringing” after extrusion;
- higher tensile and shear strength;
- the possibility to be painted over with the most common elastomeric paints;

- no contamination by plasticisers migrating into the substrate.

Thanks to its creamy consistency, fresh **Ultrabond MS Rapid** is able to compensate for differences in flatness between the two components bonded together.

Ultrabond MS Rapid contains no solvents, does not give off unpleasant smells and has very low emissions of volatile organic compounds, and is certified, therefore, EC1R Plus by GEV Institut.

Ultrabond MS Rapid hardens and polymerises by reacting with the humidity in the air or substrate, and without giving off liquid or gaseous substances potentially hazardous for users or for the environment. No hazard warning labels, therefore, are required on the packaging.

The product is ready to use and is available in plastic cartridges for traditional extrusion guns.

RECOMMENDATIONS

Do not apply on dusty or crumbly surfaces.

Do not apply on wet surfaces or surfaces suffering from continuous rising damp.

Do not use on surfaces with traces of oil, grease or form release agent.

Do not apply on bitumen.

Do not apply **Ultrabond MS Rapid** if the temperature is lower than +5°C.

Bond elements and components immediately after extruding the adhesive without waiting.

Do not contaminate fresh adhesive with alcohol-based solvents.

APPLICATION PROCEDURE

Preparation of the surface to be bonded

All the surfaces to be bonded must be dry or slightly damp, solid and free of dust, loose portions, oil, grease, wax and old paintwork.

Ultrabond MS Rapid adheres well to most building materials and does not need a primer.

In certain cases, or in particularly severe service conditions, a coat of **Primer FD** will help **Ultrabond MS Rapid** adhere to absorbent substrates.

Degrease the surface of non-absorbent substrates with a clean rag dipped in **Cleaner L** or acetone, then wait until the solvent has completely evaporated before extruding the adhesive.

On plastic substrates, we recommend roughing the surface with fine abrasive paper and then applying a coat of **Primer P**. Since there are many different types of plastic, test only a small area first to check how it reacts. If primer is applied, wait until it is completely dry before extruding **Ultrabond MS Rapid**. If in doubt, contact MAPEI Technical Services Department for the most appropriate advice.

Preparation and application of Ultrabond MS Rapid

Insert the cartridge in an extrusion gun, cut the head off the cartridge, screw the pre-cut extrusion nozzle to the cartridge and extrude a continuous bead of adhesive.

To bond small components, extrude the adhesive on their back. Join the two

components and press firmly together to spread the adhesive evenly on the back. When bonding over a large surface area, extract a series of parallel beads around 10-15 cm apart. Join the two components and press firmly together to spread the adhesive evenly on the back.

Carry out any adjustment in the position of the component within 5 minutes at +23°C.

Ultrabond MS Rapid is a rapid-hardening adhesive. If necessary, to further accelerate complete polymerisation of the adhesive, dampen the substrate by spraying on water just before applying the adhesive. In such cases, never let drops or puddles of water form on the surface.

The adhesive starts to harden after 2 hours at +23°C (and after 35 minutes if water is sprayed on the surface).

Final hardening takes place after 24 hours at +23°C for layers 2-3 mm thick.

Ultrabond MS Rapid has a high initial "suction effect", which means it can support even heavy loads on walls and ceilings straight away.

However, when bonding heavy objects on vertical surfaces or ceilings, or objects subjected to vibrations or deformation immediately after bonding, it is advisable to use **Ultrabond MS Rapid** combined with double-sided tape (up to 3 mm) to help increase its initial slip resistance. In such cases, once bonded, the position of the object cannot be adjusted.

Apply the adhesive in layers no more than 2-3 mm thick.

CONSUMPTION

According to the bonding technique used (spot bonding or in beads).

A 300 ml cartridge forms a bead of adhesive with a 10 mm base x10 mm high triangular section around 5 metres long.

Cleaning

Ultrabond MS Rapid may be removed from surfaces, tools and clothing etc. with **Cleaner L** or acetone before it hardens; once hardened, it must be removed mechanically or with **Pulicol 2000**. Make sure all traces of detergent have completely evaporated from the substrate before applying the adhesive.

PACKAGING

300 ml cartridges in boxes of 12 pieces.

COLOURS

Ultrabond MS Rapid is available in white.

STORAGE

Ultrabond MS Rapid may be stored for up to 18 months in a cool, dry place.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Ultrabond MS Rapid is not considered hazardous according to current norms and guidelines regarding the classification of preparations. However, we recommended using protective gloves and goggles, to take the usual precautions for handling chemicals products and to make sure the area where work is carried out is well ventilated.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Appearance:	thixotropic paste
Colour:	white
Density (g/cm³):	1.55 ± 0.03
Dry substances content (%):	100
Helipath viscosity:	approx. 9,000,000 (spindle F - 0.5 rpm)

EMICODE:	EC1 R Plus - very low emission
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APPLICATION DATA (at +23°C and 50% R.H.)

Application temperature range:	from +5°C to +35°C
Dust dry:	10'
Adjustment time:	5'
Initial hardening time:	2 h (35' if substrate is damp)
Complete hardening:	3.0 mm/24 h

FINAL PERFORMANCE

Initial sucker effect (according to MAPEI test procedure):	25 N
Final tensile strength (according to EN 1348): – after 7 days at +23°C:	3.0 N/mm ²
Final shear strength (according to EN 12004²): – after 7 days at +23°C:	3.0 N/mm ²
Tear strength (according to ISO 34/1): – after 7 days at +23°C:	14 N/mm
Shore A hardness (DIN 53505):	80
Elongation at failure (according to DIN 53504S3a): – after 7 days at +23°C:	120%
Resistance to UV rays:	excellent
In-service temperature range:	from -40°C to +90°C

Ultrabond MS Rapid

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

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.



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



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