

ULTRABOND PU STRONG

Ultra-rapid assembly adhesive for internal and external use



WHERE TO USE

Ultrabond PU Strong is a one-component, rigid, polyurethane adhesive used to bond construction features on building sites. **Ultrabond PU Strong** is characterised by high final pull-off strength and very short hardening times.

It is recommended, therefore, for structural bonds where a strong final bond and a high level of rigidity are required. It is compatible with most absorbent and non-absorbent building materials, including damp materials. Its rapid polymerisation makes **Ultrabond PU Strong** a highly versatile product when constructing and assembling components and features used in the building sector and in industry and can be used to replace or integrate traditional mechanical fasteners.

It is suitable for bonding internal and external window ledges, balconies, sills, skirting, wooden flooring, wooden and plastic cable trunking, insulating and soundproofing panels, pantile roofing tiles, dressings around doors, panelling and prefabricated elements.

Some application examples

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

- cement and cement-based materials;
- bricks;
- stone*;
- wood and wood-based materials;
- metal;
- painted surfaces in general;
- ceramic;
- rigid and flexible plastics*;
- insulating materials;
- fire-proof panels.

* contact the MAPEI Technical Services prior to use.

TECHNICAL CHARACTERISTICS

Ultrabond PU Strong is:

- compatible with damp substrates;
- a fast hardening product;
- supplied in traditional plastic cartridges;
- compatible with numerous types of substrate, including plastics;
- characterised by a very high resistance to abrasion;
- characterised by a higher tensile strength;
- characterised by a wide range of surface finishes such as sanded, perforated and varnished.

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

Ultrabond PU Strong is an odourless and solvent-free product.

Ultrabond PU Strong hardens and polymerises by reacting with the moisture in the surrounding air or substrate without giving off significant levels of liquid or gaseous substances.

The product is supplied ready to use and is available in plastic cartridges for use with traditional sealant guns. When applied on wood, cured **Ultrabond PU Strong** adhesive is compatible with damp surroundings, as specified for class D4 according to WATT 91 standards.

RECOMMENDATIONS

- Do not apply on dusty or crumbling surfaces.
- Do not apply on wet surfaces or surfaces with continuous rising damp.
- Do not use on surfaces with oil or grease stains or with traces of form-release compound.
- Do not apply on bitumen, glass, PE, PP PA and PTFE.
- Do not apply **Ultrabond PU Strong** if the temperature is lower than +5°C.
- Bond elements and components immediately after applying the adhesive without waiting.
- Apply the adhesive in layers no more than 2-3 mm thick.
- Press the bonded components firmly together for a sufficient amount of time, depending on their weight and the flatness of the surfaces.
- Make sure the materials to be bonded together with this adhesive are compatible beforehand, paying particular attention to aesthetic variations.
- Protect the adhesive from UV rays once fully cured.

APPLICATION PROCEDURE

Preparation of the surface to be bonded

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

Ultrabond PU Strong adheres well to most building materials and does not need a primer.

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 applying the adhesive.

Since there are many different types of supports, we recommend testing on only a small area to check the product's reaction.

If in doubt, contact MAPEI Technical Services for the most appropriate advice.

Preparation and application of Ultrabond PU Strong

Insert the cartridge in a sealant gun, cut off the tip of the cartridge, screw the nozzle to the cartridge and apply a continuous bead of adhesive.

To bond small components, extrude drops of adhesive (2-3 cm diameter) on the back. Join the two components and press firmly together to spread the adhesive evenly on the back of the component.

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

Adjust the position of the component within 3-4 minutes at +23°C.

Ultrabond PU Strong 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.

2-3 mm thick layers harden completely after 24 hours at +23°C.



CONSUMPTION

Depending on the bonding technique used (spot-bonding or in beads), a 300 ml cartridge forms a bead of adhesive around 4-5 metres long.

CLEANING

Remove **Ultrabond PU Strong** from surfaces, tools, clothing, etc. with **Cleaner L** or acetone before hardening. 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

Boxes of 12 x 300 ml cartridges.

COLOUR

Ultrabond PU Strong is available in beige.

STORAGE

Ultrabond PU Strong may be stored for 18 months in a dry, cool place.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Ultrabond PU Strong is irritant for skin, eyes and respiratory tract. It may cause sensitisation if inhaled and if it comes in contact with the skin of subjects sensitive to isocyanates. It also may cause irreversible damages if used for lengthy periods. During use wear protective clothing, gloves and goggles, a safety mask to protect the respiratory system and to work only in well ventilated areas. If the product comes in contact with the eyes or skin wash immediately with plenty of water and seek medical attention.

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

PRODUCT ONLY FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	thixotropic paste
Colour:	beige
Density (g/m ³):	1.50 ± 0.03
Dry substances content (%):	100
Helipath viscosity (spindle F, 0.5 RPM):	approx. 9,000,000
APPLICATION DATA (at +23°C and 50% R.H.)	
Application temperature:	+5°C to +35°C
Dust dry:	4 mins.
Adjustment time:	10 mins.
Application of pressure:	15-30 mins.
Complete hardening:	3.0 mm/24 h
Initial compression load (kg/cm ²):	≤ 8

FINAL PERFORMANCE	
Final shear strength (N/mm ²): – after 7 days at +23°C:	4.4 ÷ 6.4
Resistance to UV rays:	fair
Service temperature:	-30°C to +80°C

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

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The contents of this Technical Data Sheet (“TDS”) may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.com.

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