Parabond 600

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Elastic adhesive sealant with high initial bonding.

Product
Parabond 600 is an MS-polymer based, durable and fast curing elastic adhesive.

Applications
Parabond 600 has a very high initial strength and bonds without primer on almost all materials used in the construction industry, such as aluminium, galvanised and stainless steel, zinc, copper, natural stone, concrete, brick, cement based cover sheeting, HPL panels, treated wood, gypsum, glass, glazing, various synthetic materials, etc. It is extremely suitable for gluing and fitting of safety glass in the banking industry and fitting cable ducts, mitres in aluminium windows, mirrors etc. It can be used for bonding materials in the automotive industry. It is suitable for use as universal glue. It is extremely suitable for the structural gluing of panels and elements in the professional interior and ceiling construction. Welding or stamping is in most cases not necessary.

Examples of applications are the vertical or horizontal fixing of:
- Wall cladding elements and ceiling panels (interior)
- Sound isolation panels (mineral wool, wood-wool cement and plastic foams)
- Thermal isolation panels (PUR, PIR & PS)
- Casings and frames in building construction
- Wooden and plastic laths, ornaments and frames
- Doorsteps, window sills, skirting boards and cover plates
- Complete construction elements (such as roofing and other elements) in frames.

Parabond 600 is not suitable for:
- Joints that are exposed to constant submersion under water
- Joints with a width or depth < 5mm
- Swimming pools containing chlorine, with constant submersion under water
- Not suitable for indoor swimming pools
- Gluing PE, PP, PA and Teflon®
- Bitumen: use our Paraphalt for this purpose
- Polycarbonate and polyacrylate: use our Parasilico PPL for this purpose

Proper ventilation during processing and hardening is important.

Characteristics
- Rapid increase of internal strength
- Excellent bonding on most building materials
- Bonds also with slightly moist supports
- Solvent and isocyanate free
- Extremely strong
- Permanently elastic
- Does not cause any corrosion in metal joints
- For interior and exterior use
- UV and weather resistant
- Suitable for use with natural stone
- Suitable for rooms with high humidity
- Paintable with most water and solvent based paints. Can be painted wet on wet. After 48 hours, the surface must be cleaned first before it can be painted. Pre-testing is necessary. Alkyd paints require an extended drying time.

Surface Preparation and Sealant Application

Base component - the support must be fixed and rigid enough. The support may be slightly damp.

Pre-treatment - the materials to be joined must be clean and free from dust and grease. If necessary, degrease using Parasilico Cleaner, MEK, alcohol or ethanol. For strongly absorbent supports, it is recommended to use DL-2001 Primer. It is advisable to do bonding tests. It is the user's responsibility to check whether the product is suitable for his application. Our technical department may be consulted, if necessary.

Application - apply Parabond 600 with the supplied nozzle in strips or dots to the base or on the element to be bonded. The strips must be applied in vertical rows. The parts can at this stage still be adjusted. Finally, push down one over the other well. For information regarding the mutual distances between the adhesive strips, refer to the heading "Adhesive Requirements". It is advised to have a gap of 3.2mm between the parts to be bonded, to allow the adhesive to smooth out any distortions (especially important in exterior use or under humid conditions). To achieve this space, spacer blocks or pieces of foam tape with a thickness of 3.2mm may be used. If the adhesive layer does not have to take up any, or only has to take up a slight mutual distortion between the joining parts, a thinner adhesive layer (at least 1.5mm) will suffice (for example in interior applications).

Exposure Time - bring together the parts to be joined as quickly as possible, at least within 10 minutes (this depends on the temperature and relative humidity level). The parts can at this stage be adjusted, but finally it should be pushed down well over the other or tapped with a rubber hammer.

Removal of Surplus Adhesive - any adhesive that may protrude along the edges can be removed using a stopping knife. Adhesive residue that has not yet dried, can be removed using Parasilico Cleaner. Dried adhesive residue must be removed mechanically. If desired, smooth finishing can be done using DL 100 or rubber stripper.

Drying Time & Strength

Parabond 600 combines the benefits of a tape with that of a reactive adhesive system: during assembly, Parabond 600 has a high bonding capacity and internal strength. Thus, it is possible to work without temporary supports or the joined parts can be moved directly or be processed further.
After drying under the influence of humidity, Parabond 600 cures into a permanently elastic and extremely strong bond.

Instantaneous Strength - the internal strength of Parabond 600 immediately after application is such that bonding is possible without clamping or temporary support. Internal strength (immediately) > 0.0015 N/mm^2. Strength per m^2 adhesive surface > 1500 N (>150 kg). After one hour, the strength has increased threefold. Internal strength (after 60 minutes) > 0.0045 N/mm^2. Strength per m^2 adhesive surface > 4500 N (>450 kg).

After Drying - Parabond 600 dries into a durable elastic and extremely strong adhesive connection under the influence of humidity. The maximum tensile stress is >1.5 N/mm^2, the shearing force amounts to 2-4 N/mm^2 depending on the adhesive formation. Refer to the Technical

characteristics for additional information regarding the strength parameters.

Adhesive Requirements

Parabond 600 is applied in the form of adhesive strips or dots. By placing the component to be joined, the adhesive distributes between the element and the base. The eventual surface of the adhesive later determines the strength of the connection, both initially as well as after drying. The relationship between the dimensions of the adhesive strips and the final adhesive surface is determined by the surface structure of the parts to be joined and obviously of the final thickness of the adhesive. Triangular adhesive strip of 9mm wide and 9mm high (approx. 40mm^2 in area) provides an adhesive width of 13mm at a thickness of 3mm on smooth materials. On uneven bases, the adhesive width at a minimum thickness of 3mm will correspond with approx. 10mm. At an adhesive thickness of 1, 5mm, the widths are respectively 26 and 20mm approx. Apply the strips parallel to each other, to allow the humidity to reach the adhesive between the strips. Assuming a standard triangular strip of 9mm wide and 9mm high and pressing together to adhesive thickness of 1.5 and 3mm, the relationship as stated below can be established between strip distance and weight of the parts to be joined. Level base surfaces are assumed. It is advised to carry out tests beforehand. With the bonding of bigger wall or ceiling elements, possible additional gravitational forces should be considered (e.g. because of bends in the panels).

Strength Immediately and After One Hour of Application

Thickness of the adhesive 1.5mm (on smooth base - width after applying pressure is 13mm). Strip distance, immediately after 60 minutes per m^2.

10 cm	Adhesive surface 26% of the base	370 N	37.0 kg	1110 N	111 kg
20 cm	Adhesive surface 13% of the base	185 N	18.5 kg	555 N	55.5 kg
30 cm	Adhesive surface 9% of the base	130 N	13.0 kg	390 N	39 kg
40 cm	Adhesive surface 6.5% of the base	95 N	9.5 kg	285 n	28.5 kg

Thickness of the adhesive 3mm (on smooth support - width after applying pressure is 26mm). Strip distance, immediately after 60 minutes per m^2.

5 cm	Adhesive surface 26% of the base	370 N	37.0 kg	1110 N	111 kg
10 cm	Adhesive surface 13% of the base	185 N	18.5 kg	555 N	55.5 kg
20 cm	Adhesive surface 6.5% of the base	95 N	9.5 kg	285 N	28.5 kg
30 cm	Adhesive surface 4.5% of the base	67 N	6.7kg	201 N	20.1 kh
40 cm	Adhesive surface 3% of the base	45 N	4.5 kg	135 n	13.5 kg

When determining the number of strips, make sure that the internal cohesive forces of the parts to be joined are not exceeded (e.g. ceiling tiles based on mineral wool. With such materials, it is advisable to apply adhesive to the biggest possible surface). Distribute the adhesive strips regularly over the surface to be joined.

Technical Data

Basic Ingredient	MS-Polymer
Curing System	By means of humidity
Curing Speed	2.5 to 3mm / 24 hours at 23°C and 50% R.H.
Number of Components	1
Skin Formation Time	10 to 15 minutes at 23°C and 50% R.H.
Density	1.56 g/ml (approx.)
Shore A Hardness	55 (+/- 5) (ISO 868)
Joint Movement Capacity	+/- 20%
Modulus at 100% Elongation	1.300 N/mm^2 (ISO 8339-40)
Modulus at Break	1.500 N/mm^2 (ISO 8339-40)
Elongation at Break	230% (ISO 8339-40)
Solvent Content	0%
Isocyanate Content	0%
Dry Matter Content	100% (approx.)
Processing Temperature	+5°C to +40°C (do not process below +5°)
Temperature Stability	-40°C to +90°C
Moisture Resistance	Extremely Good
Frost Stability	Not sensitive to frost

Packaging & Colour

25 cartridges of 290ml per box: white, black, gray (RAL 7004), dark brown (RAL 8016), beige (RAL 1001).
20 sausages of 600ml per box: white and black.
Other colours available upon request.

Certificates

IKI-report for the use in hospitals as glue and adhesive for wall panels.
Leeds certificate for low VOC.

Storage & Stability

Keep in a cool place in the sealed packaging. Shelf life is 12 months in the sealed packaging between +5°C and +25°C. Shelf life in opened packaging is limited.

Safety

Please refer to the safety data sheet which is available upon request.