

Parabond 600

Elastic adhesive sealant with high initial bonding strength.

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, galvanized 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 of cable ducts, mitres in aluminium windows, mirrors etc. It is suitable for use as universal glue and adhesive for sealing seams, connecting and movable joints. It is extremely suitable for the structural gluing of panels and elements in the professional facade, 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 & 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 facade elements) in frames

Parabond 600 is not suitable for:
- Joints that are exposed to constant submersion under water
- Joints with a width or depth < 5 mm
- 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 PL 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

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- 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 userôs responsibility to check whether the product is suitable for his application. Our technical department could be consulted, if necessary.

Application of sealant: 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 3.2 mm 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 3.2 mm 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 1.5 mm) 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 still 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 must be removed mechanically. If desired, smooth finishing can be done using DL 100 or rubber stripper.

Drying time and 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.

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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/mm²
Strength per m² adhesive surface > 1500 N (> 150 kg)
After one hour, the strength has increased threefold:
Internal strength (after 60 minutes) > 0.0045 N/mm²
Strength per m² 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/mm², the shearing force amounts to 2-4 N/mm² 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 layer 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 9 mm. wide and 9 mm. high (approx. 40 mm² in area) provides an adhesive width of 13 mm. at a thickness of 3 mm. on smooth materials. On uneven base, the adhesive width at a minimum thickness of 3 mm. will correspond with approx. 10 mm. At an adhesive thickness of 1,
5 mm., the widths are respectively 26 and 20 mm. 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 9 mm. wide and 9 mm. high and after pressing together to adhesive thickness of 1.5 and 3 mm, 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 (eg. because of bends in the panels).

Strength immediately and after one hour of application:
Thickness of the adhesive 1.5 mm. (on smooth base - width after applying pressure is 26 mm.)
Strip-distance, immediately (per m²) after 60 minutes (per m²)

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

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Thickness of the adhesive 3 mm (on smooth support - width after applying pressure is 13 mm.)
Strip-distance, immediately after 60 minutes per m²

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	6.7 kg	201 N	20.1 kg
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 (eg. 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 3 mm/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/mm² (ISO-8339-40)
Modulus at break:	1.500 N/mm² (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°C)
Temperature stability:	-40°C to +90°C
Moisture resistance:	Extremely good
Frost stability:	not sensitive to frost

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Packaging & Colour:

- 25 cartridges of 290 ml per box: white ï black ï grey (Ral 7004) ï dark brown (Ral 8016) ï beige (Ral 1001)
- 20 sausages of 600 ml per box: white, black
- Other colours on request.

Certificates:

- KOMO-certificate nr. 20764/06 with product certificate: Parabond 600 for mounting wall sheeting without nails or screws.
- IKI-report for the use in hospitals as glue and adhesive for wall panels.
- Leeds certificate for low VOC.

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

Safety:
Please refer to safety data sheet which is available on request.

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