



Technical Data Sheet



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Seal and Bond

High modulus, mould resistant and weathering resistant sealant & adhesive for indoor and outdoor applications based on Flextec[®]-Technology.



CHARACTERISTICS

- Resistant to fungal growth
- Good elasticity
- Excellent adhesion without primer
- Excellent adhesion on copper and brass
- High initial tack
- Interior and exterior use
- Tack-free surface
- Suitable for natural stone
- Impact and vibration absorbing
- Non-corrosive
- Isocyanate-free
- Silicone-free
- Solvent-free
- Bonds to damp surfaces
- Good gun-ability even at low temperatures
- Nearly no shrinkage during curing
- Very good UV-, weather and ageing resistance

APPLICATION FIELD

Seal and Bond bonds and seals well on a wide variety of substrates and is recommended for use in elastic sealing and bonding applications:

- Seal and Bond is multiple-substrate compatible including Brick, Ceramic, Concrete, Hardboard, Plasterboard, Plywood, MDF, Wood, Metal, UPVC, Glass, Plastics*, painted surfaces*, Mirrors**.
- Movement joints in facades.
- Connection joints, e.g., joints between wood/aluminium/PVC-window or door frames and brickwork, for stairs, balconies, terraces, natural stones (e.g., marble, granite), soundproofing of pipes between concrete and sheathing and many more.
- Installing (bonding and sealing) of windowsills, skirting boards, covering boards, stair steps, tiles, fittings etc. bonding of baseboards, crash protection boards, stucco, metals, wood, stoneware, prefabricated elements and many more.
- Sealing and bonding applications where mould resistance is required.
- Sanitary joints, when the use of silicone sealants is not possible or not advisable (e.g., toilets/showers in automotive industry or paint shops).
- Filling/sealing of cracks.
- Joints and seam seals in metallic and wooden construction.
- Joints in ventilation & air-conditioning ductwork.



INSTRUCTIONS FOR USE

Pretreatment:

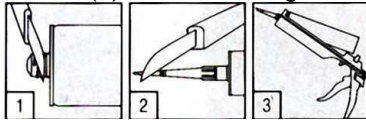
Seal and Bond is supplied ready to use and can be applied from the cartridge using a standard air or hand operated gun, with no special pre-treatment. If used for sealing, make sure to remove all old sealants before filling the joint.

Application:

Sealing application:

The joint width must be designed to suit the movement capability of the sealant. In general, the joint width must be > 10 mm and < 35 mm. A width to depth ratio of ~1:0.5 must be maintained. Fill deep joints with a PE foam 'Backer Rod' prior to applying the sealant.

Cut off tip of the cartridge above the screw thread (1). Screw on plastic nozzle and cut off the tip of the nozzle (2). Place cartridge into gun (3).



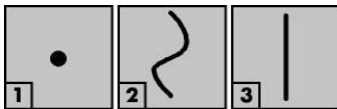
Insert cartridge into sealant gun and firmly extrude the Seal and Bond into joint, making sure that it is full contact with the side of the joint. Fill the joint, avoiding air entrapment. Seal and Bond must be tooled firmly against joint sides to ensure good adhesion.

Masking tape must be used where sharp exact joint lines or exceptionally neat lines are required. Remove the tape whilst the sealant has still not formed a skin.

After application, the product can be smoothed with Unibond Sealant Smoother Tool before skinning for a perfect sealant surface.

Bonding application:

Apply adhesive onto the surface of one of the elements to be bonded: In spots (1) to smooth uneven surfaces, in wave-like form (2) for higher initial tack with large surfaces or in straight beads for smaller surfaces (3). Release gun after application to stop adhesive flow. (Not valid for Foldable Gun (DW111/120)).



Firmly fix items to be bonded into position with a twisting action. If necessary (e.g., heavy items and items under tension), support the items until cured. Items can be adjusted after application. Minimum thickness of the adhesive layer should be 1 mm to ensure ventilation.

In case of outdoor use, apply **vertical** strands. Use hand pressure to set the element to be bonded into position. If necessary, use adhesive tape, wedges, or props to hold the assembled elements together for the initial hours of curing.

An incorrectly positioned element can be easily unfastened and repositioned in the first few minutes after application. Apply pressure again.



Optimum bonding will be obtained after complete curing of Seal and Bond, i.e., after 24 to 48 hours at +23°C for a thickness between 2 to 3 mm.

Cleaning tools/ Excess sealant

Fresh sealant may be cleaned with a cloth soaked in white spirit or alcohol (e.g., methylated spirit)
Cured sealant can be removed by scraping (e. g. using a razor blade) or by using a special silicone remover product.

Drying time

The sealant will be touch dry in 30 mins. Cures in approx. 24-48 hours at +23°C for thickness 2-3mm. Wait until the product is fully cured before applying loads or exposing to water.

Please note

The joint must be cleaned and maintained regularly.
Ensure good ventilation in the room where the sealant is applied, if using indoors.

TECHNICAL DATA

<u>Uncured product</u>		
Base:	Flextec®-Polymer (moisture curing silane modified polymer (SMP))	
Odour:	Alcohol	
Application temperature:	+5°C to +40°C (substrate and ambient)	
Consistency:	Non-slump paste	
Density:	~ 1.4 g/ml	(ISO 2811-1)
Resistance to flow:	~ 0 mm	(ISO 7390)
Skin formation time:	~ 25 minutes	(23°C, 50% r.h.)
Curing speed:	~ 2 mm / 24 hours	(23°C, 50% r.h., bead 20x10mm)
Initial tack:	~ 8-10 g/cm²	
<u>Cured product</u>		
Odour:	Odourless	
Shore A hardness:	~ 30	(ISO 868)
100% Modulus:	~ 0,60 N/mm²	(ISO 8339-A)
Tensile strength:	~ 0,9 N/mm²	(ISO 8339-A)
Elongation at break:	~ 300 %	(ISO 8339-A)
Elongation at break:	~ 400 %	(ISO 8339-B)
Elastic recovery:	~ 80 %	(ISO 7389-B)
Shrinkage:	~ -3 %	(ISO 10563)
Movement capability	25 %	(ISO 11600-F)
Recommended joint width	10-35 mm	
Service temperature:	-40°C to 80°C	



LIMITATIONS

Cannot be over-painted.

In case of powder coated substrates (e.g., powder coated aluminum window frames) an adhesion test is recommended before use.

Do not use Seal and Bond as a glazing sealant.

Do not use on bituminous substrates or on building materials which might bleed oils, plasticizers or solvents which could attack the sealant.

Not suitable for joints with water pressure or permanent water immersion, e.g., in swimming pools. Do not use Seal and Bond to seal bathtubs or washbasins.

Color deviations may occur e.g., due to exposure to chemicals or high temperatures. However, a change in color does usually not affect adversely the technical performance or the durability.

Product may only be used for mirror bonding if the mirror coating and the protective lacquer complies with EN 1036-1. In case of unknown mirror qualities please ask mirror producer for an approval.

Storage:

Store in a cool, dry place between +5°C and +25°C. Shelf life is 12 months in unopened cartridge after date of manufacture (the expiry date is shown on the cartridge).

Packaging

Cartridge – Translucent 291g

Cartridge – White 389g

HEALTH AND SAFETY

Before using the product, please see related Material Safety Data Sheet that is available on request.

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.

Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

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