

# Technical Data Sheet

## *EVT Hybrid 007 HPHA*



### Special Properties

- single-component, elastic sealant based on hybrid polymer
- neutral curing, non-corrosive
- low odour formulation, solvent- and silicone-free
- ageing- and weather-resistant, good UV resistance
- compatible with paints
- very good adhesion to most substrates in construction areas, including slightly wet substrates (rain-resistant after being fully cured)
- very low shrinkage

### Fields of application

All-purpose sealant & adhesive for elastic bonding and jointing inside and outside in construction areas as well as in wood and metal construction. Suitable for most substrates as wood, metal (e.g. stainless steel, aluminium, copper), glass and for bonding of skirting boards and decorative strips.

For elastic bonding and mounting of air ducts and for bonding and sealing of ceramic substrates (e.g. tiles).

### Tests & Standards

- **EN 15651** (CE-labelling): Type F int-ext CC 12,5E
- **ISO 11600**: Class F 12,5E
- **DGNB** (Version 2018; ENV 1.2 Risks for the local environment, appendix 1, Nr. 12 & 13):  
Fulfils the requirements for quality levels 1 to 4
- **LEED 2009**: Fulfils the requirements of IEQ Credit 4.1 (VOC-content < 50g/l)
- Fulfils the requirements for **GEV EMICODE EC1<sup>plus</sup>**
- **VOC-classification** (France): A+
- **EN 13501** (fire resistance): Class E
- **EG 1935/2004**: Certificate of Compliance for use in applications with food contact
- Suitable for applications given in **IVD data sheet** Nr. 9, 16, 20, 21, 22, 24, 25 & 30

### Colours and packaging

Standard colour: white, grey, black

Packaging: cartridges 290 ml; film bags 400 & 600 ml; other package sizes available on request

## Technical Data

Density (DIN EN ISO 2811-1)	1,46 ± 0,06 g/cm <sup>3</sup>
Skin forming time (23°C/50% r.F)	app. 25 min
Penetration (DIN 51579 / 5 sec.)	170 ± 30 1/10 mm
Slump ISO 7390)	≤ 2 mm
Cure rate (within first 24 hours)	app. 2 mm
Shore A hardness (DIN 53505)	45 ± 7 units
Tensile strength (ISO 8339-A, 100%)	app. 1,2 N/mm <sup>2</sup>
Maximum movement tolerance	12,5 %
Volume loss (DIN EN ISO 10563)	max. 3 %
Application temperature (sealant & substrate)	+5 to +35°C
Temperature stability (fully cured sealant)	-40 to +80°C
Shelf life (originally closed packages)	15 months (+5 to +35°C, 50% r.H.)

Rate of curing depends on temperature, humidity and depth of substrate. The data given refer to tests at standard conditions (23°C / 50% rel. humidity). Under these conditions, a 10 x 10 mm joint will cure in 8 to 14 days. Low temperature, low humidity and joint depth above 15 mm will retard skin formation and curing significantly.

Data given were determined shortly after production, and may slightly vary with increasing age of product and for different colours. They are not meant for specification purposes.

## Usage instructions

### Substrate pretreatment

The substrate must be dry, firm, and free of dust and grease (clean with isopropanol, if necessary). Porous substrates (e.g. concrete, plasterboard and untreated wood) must be primed (see primer table). Before primer application, remove any cement slurry, mould release agents or impregnations. On non-load bearing substrate (e.g. gypsum), we recommend hardening of the substrate before applying the sealant.

In renovation projects, old sealant, remains of paint and loose material must be fully removed. On coated substrates (paints, lacquers), compatibility to the sealant must be tested.

**Bonding applications:** At least one of the substrates involved should be water-permeable (concrete, wood). Apply adhesive as a bead to the substrate. Fix work piece to be bonded with slight pressure to the substrate. Remaining thickness of adhesive should be at least 2 mm. If both bonding faces are water-impermeable (metals, plastics), we recommend to apply the adhesive in parallel (vertical) beads with sufficient distance to each other to allow sufficient moisture supply (from ambient air).

**Sealing applications:** The joint must always be provided with a suitable, correctly dimensioned joint backing (e.g. PE cord, PE foil) to prevent adhesion on three faces. To avoid contamination and to achieve a precise joint, we recommend masking the joint edges with adhesive tape before primer application and filling.

Joint dimensions should be at least 5 x 5 mm for indoor and 10 x 8 mm (width x depth) for outdoor applications. With increasing joint width (up to 30 mm), joint depth should be roughly half the joint width. Make sure that triangular bevels have uniform sides of equal length with at least 7 mm bonding surface on each side.

After applying the sealant with a suitable manual, battery-powered or pneumatic caulking gun, the sealant can be smoothed in the joint with water or with a neutral, non-staining water-based smoothing agent and a suitable tool (e.g. jointing trowel). Smoothing is not only recommended for optical reasons, but also establishes close contact and good adhesion to the substrate. Remove excess smoothing agent (risk of schlieren). Any adhesive tape used should be removed immediately after smoothing. We recommend the FS caulking gun and FS jointing trowel.

After being fully cured, remains of sealant can be disposed via domestic or commercial waste.

## **Important remarks**

The function of the sealant can only be guaranteed if correctly applied in accordance with the technical recommendations given in this data sheet and in related standards. Sealant application in situations with strongly fluctuating temperatures (premature stressing of the sealant) must be avoided.

The sealant is compatible with many paints and lacquers. Owing to the large number of different coating systems on the market, own tests concerning adhesion and compatibility have to be performed prior to application. For example, it is known that alkyd resin-based paints may give discolouration in combination with sealants.

Products based on Hybrid- (MS-) technology are over-paintable with many paint systems. Due to the lower movement tolerance of these paints, cracking might occur (not adversely affecting the mechanical properties in most cases). Joints subject to movement must not be overpainted.

Especially on powder-coated substrates, adhesion has to be tested carefully, since it can be affected negatively depending on the coating used (may even vary for different colours of the same brand of powder coating).

In contact with bituminous, tar- or plasticizer-releasing substrates (e.g. EPDM, neoprene, butyl), discolouration and/or loss of adhesion may occur.

Good ventilation must be provided during application and curing to allow curing by-products to evaporate. Low temperature, low humidity and joint depths above 15 mm can retard skin formation and curing significantly.

Exposure to liquid (e.g. acid-based cleaning agents, strongly coloured liquids) or gaseous chemicals (e.g. tobacco smoke, exhausts from other construction materials (e.g. wood, lacquers)) for longer periods can result in discolouration of the product, especially for light colours (white). In general, the mechanical properties of the sealant are not adversely affected.

Other freshly applied chemical construction products may disturb curing of the product. Acetate-based silicone sealants should not be applied close to this product at the same time.

The product must not be used in aquarium construction or as mirror adhesive. On natural stone, we recommend own tests to ensure compatibility (staining). Not suited for permanent underwater applications (suited for temporary applications).

At elevated temperatures, the fresh (non-cured) sealant can react with copper and copper containing alloys, leading to discoloration. When applied on these metals, temperatures above 30°C and intense solar radiation have to be avoided during application and curing.

Not suitable for plastics with in general poor adhesion to silicones (e.g. PE, PP, PET) and for two-dimensional bonding between non-absorbing surfaces.

## **Safety advice**

See material safety data sheet. Take all measures resulting from the safety data sheet and hazard labelling to prevent accidents and protect health.

## **Warranty information**

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*Each new release of this data sheet supersedes the previous one.*



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