# *Silicone PX 3405 / PX 3404*

**Technical Data Sheet**

## Special Properties

- single-component, silicone based elastic sealant
- neutral curing – **MEKO-free** (no 2-butanoneoxime)
- low odour formulation
- ageing- and weather-resistant, good UV resistance
- good adhesion on metals and many plastics, compatible with copper
- compatible with paints
- with fungicide (without fungicide available upon request)

## Fields of application

For sealing joints and connecting joints in glass, window and metal construction and in the sanitary sector. Also suitable for roofing and plumbing works and in heating, ventilation and air-conditioning engineering.

## Tests & Standards

- **EN 15651** (CE-labelling): Type F int-ext CC, Type G-CC, Type S
- **DGNB** (Version 2018; ENV 1.2 Risks for the local environment, appendix 1, Nr. 12): Fulfils the requirements for quality levels 1 to 3
- **LEED** 2009: Fulfils the requirements of IEQ Credit 4.1 (VOC-content < 50g/l)
- **VOC-classification** (France): A+
- **EN 13501** (fire resistance): Class E

## Colours and packaging

| | |
|---|---|
| Standard colour: | transparent, white; other colours available on request (PX 3405)<br>opaque (PX 3404) |
| Packaging: | cartridges 310 ml; film bags 400 & 600 ml; other package sizes available on request |

## Technical Data

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|---|---|
| Density (DIN EN ISO 2811-1) | 1,01 ± 0,05 g/cm³ |
| Skin forming time (23°C/50% RH) | app. 8 min |
| Penetration (DIN 51579 / 5 sec.) | 170 ± 30 1/10 mm |
| Slump ISO 7390) | ≤ 2 mm |
| Cure rate (within first 24 hours) | app. 2,5 mm |
| Shore A hardness (DIN 53505) | 19 ± 5 units |
| Tensile strength (ISO 8339-A, 100%) | app. 0,4 N/mm² |
| Maximum movement tolerance | 25 % |
| Application temperature (sealant & substrate) | +5 to +35°C |
| Temperature stability (fully cured sealant) | -40 to +150°C |
| Fire classification (EN 13501) | E |
| Shelf life (originally closed packages) | 15 months (+5 to +35°C, 50% RH) |

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 pre-treatment

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. 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.

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

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.

### Tooling.

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.

One cartridge (310 ml) will give app. 12 m (5 x 5 mm) or 3m (10 x 10 mm) joint length. 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. The sealant is not over-paintable.

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 temperatures, 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.

Products with fungicide give additional protection against mould to the joint. But, this cannot supersede good housekeeping: It's essential to keep the joint clean, dry and free of substances, that may serve as nutrition medium (e.g. soap residues, skin scales).

The product must not be used in aquarium construction, on marble/natural stone, as mirror adhesive, in underwater applications and in areas with direct food contact.

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

## 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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