



Technical Data Sheet TDS 04.21DEU PU 50 FC POLYURETHANE

Product:

One-component sealing joint sealant, based on polyurethane. It cures by vulcanizing air humidity, creating a permanently strong, elastic joint. Paintable after curing.

Characteristic:

- High modulus, fast curing
- High adhesion to various building materials and their combinations
- Paintable
- Permanently elastic
- Resistant to weathering, water and moisture
- Short-term resistant to gasoline, diesel, mineral, vegetable and animal oils
- Resistant to seawater and lime water, weak acids and alkalis
- High UV resistance

Usage:

Sealing of expansion joints in concrete, stone plinths, window sills, staircases, etc.
Sealing joints between wood, concrete, masonry, metals, plastics, glass in construction and industry
Sealing of cladding joints in the production of industrial and residential containers
Bonding of window sills, thresholds, steps, tiles on walls and steel structures
Flexible bonding of joints in the engineering and automotive industry (bonding of car bodies)

Package:

- Cartridge 300 ml

Color:

- White
- Grey
- Black

Specifications

Basis	-	polyurethane	
Consistency	-	thixotropic paste	
Application speed	g/min	120	Ø4 mm/3 bar
100% module	N/mm ²	0,7	DIN 53504 S2
Shrinkage	%	<10	
Dilatation ability	%	25	
Density	g/ml	1,23	ISO 1183-1
Flow	mm	< 3	ISO 7390
Skin time	min	70	(23°C/50% RH)
Curing speed	mm	3	24 hours (23°C/50% RH)
Application temperatures	°C	+5 / +40	
Heat resistance	°C	-30 / +70	
Heat resistance	°C	-15	During transportation
Elongation at break	%	450	ISO 8339
Tensile strength	N/mm ²	1,4	DIN 53504
Shore A Hardness	-	47 ±5	DIN 53505

Surface:

It must be clean, dry, solid, free of dust, grease, and oil. Absorbent substrates primed with PRIMER recommended 250. The concrete blocks, bricks, tiles or paving to reduce the water imbibition during the production of chemically treated and impregnated, these modifications can cause the formation of bubbles during curing sealant.

Limitations:

Not suitable for use on PP, PE, PC, PMMA, PTFE, soft plastics, teflon, neoprene and asphalt substrates. Not suitable in combination with chlorides (swimming pools). Exposure of PU sealant to UV radiation may cause slight yellowing, this change does not affect mechanical properties and is only an aesthetic defect. Synthetic coatings on sealants may mature more slowly. It is not suitable for collectors with contact with alcohol and ethyl acetate only short-term resistance.

Use:

The substrate must be free of loose particles, dust, and grease before application. Non-porous substrates do not require the use of penetration. Porous substrates can be primed with Primer 250. The expansion joint formed by the sealant should have the correct width-to-depth ratio. If the joint is between 5mm and 10mm wide, the depth-to-length ratio is 1: 1. For expansion joints wider than 10 mm: depth = (width / 3) + 6 mm.

The application is carried out using a cartridge gun. In the case of wider joints, the so-called "welding" procedure is used, in which the sealant is first applied to both sides of the joint and then the space between them is filled. For a nice joint design, we recommend strapping the joints around with "masking tape" to protect surrounding structures. Finisher and silicone spatula or spatula are used to smooth the sealant surface.

On a damp substrate, it is necessary to count on the formation of bubbles, which may affect the tensile properties of the sealant, as the increasing proportion of bubbles reduces the effective cross-sectional area and reduces the tensile strength. Substrate humidity: ≤ 15% (medium absorbent substrates), ≤ 20-23% (highly absorbent substrates).

Consumption is calculated:

$$\text{joint length [m]} = \frac{\text{content[ml]}}{\text{width[mm]} \cdot \text{depth[mm]}}$$

Approximate consumption from 310 ml:

12,9m (joint dimension 4x 6 mm)

Paintability:

Polyurethane-50FC is easily paintable with water-based paints and mostly two-component paints. Synthetic coatings may dry more slowly. However, it is recommended to check the compatibility with the paint before application.

Cleaning:

Material: immediately with technical petrol / Universal Cleaning Wipes

Hands: water and soap, reparative hand cream / Universal Cleaning Wipes

Shelf life:

In dry and unopened cartridge at temperatures from +5 ° C to +25 ° C. For expiration date, see product packaging.

Updates:

Updated: 25.10.2019

Issued: 15.01.2001

The product conforms to specifications during the warranty period. The information and data provided are based on our own experience, research, and objective testing and we assume that they are reliable and accurate. However, the company cannot know the various applications where and under which conditions the product will be applied, nor the application methods used, therefore under no circumstances warrants beyond the scope of this information as to the suitability of the products for certain uses or use procedures. The above information is general. Each user is obliged to make sure that they are suitable for their own tests. For further information please contact our technical department.