

POLITEK

One-component polyurethane elastomer sealant for construction



DESCRIPTION

POLITEK is a one-component polyurethane sealant specifically formulated for the building industry. It is characterized by remarkable ease of application, hardens using the humidity present in the atmosphere and becomes a low modulus sealant with high adhesive performance on most surfaces, and high resistance to aging and the action of atmospheric agents.

POLITEK is available in two versions:

- ↑ [AM \(High Elasticity Modulus\)](#), high-strength, specific for horizontal joints
- ↓ [BM \(Low Elasticity Modulus\)](#), with high elasticity, specific for vertical joints

FEATURES & BENEFITS

- Permanently elastic over a wide temperature range
- Does not drip
- Does not collect dirt
- Very good adhesion on all typical building materials
- Easy to extrude, machine, level
- Does not create filaments at the time of detachment
- Excellent resistance to aging and weathering
- Over-paintable with different water-based and solvent-based paints (preliminary tests recommended)
- Excellent resistance to water and salt spray
- Good UV resistance
- Medium resistance to dilute acids and bases
- Temperature resistant from -40°C to +80°C.

APPLICATIONS

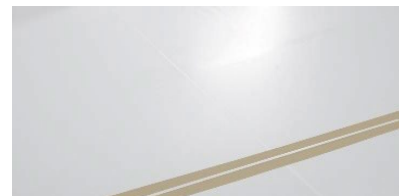
POLITEK has excellent adhesion to almost all materials and can be applied to all joints in construction, such as, for example, sealing of:

POLITEK AM

- ↑ Expansion and construction joints in horizontal applications
- Concentration and expansion joints of industrial concrete floors
- Joints of floors, terraces, stairs, prefabricated elements, window sills, thresholds and plasterboard panels

POLITEK BM

- ↓ Expansion/expansion and construction joints in vertical applications
- Joints of light and heavy prefabricated elements
- Joints of coatings in general
- Joints of floors, terraces, stairs, prefabricated elements, window sills, thresholds and plasterboard panels





- Connection joints between window and wall
- Connection joints between different materials
- Joints between concrete, bricks, blocks, stone, ceramics, tiles, masonry, wood, aluminium, metal structures and plasterboard
- Perimeter joints of windows or doors
- Water drain joints and suitable for sealing general plumbing structures in contact with water
- Parapets of bridges and terraces
- Building roofs
- To reduce vibrations

TIPS FOR USE

Ready-to-use product.

Substrates and surface preparation: adheres to most surfaces normally found in construction. The application surfaces must be clean, dry, free from any impurities (dust or grease) and any other contaminants that may damage the adhesion.

Glass, metal and other non-porous surfaces must be free of any protective coating and cleaned with solvent, acetone or degreaser. Allow the substrate to dry after degreasing. Prefabricated panels that have release substances as well as polyethylene films must be mechanically sandblasted or abraded and dust-cleaned. It is recommended to clean concrete or concrete screeds with a brush with metal bristles.

POLITEK has excellent adhesive capacity without the use of primer on most common building materials.

Therefore, it is not necessary to apply any primer if the substrates to be sealed are properly prepared and consolidated.

In any case, the variety of bricks, natural stones, plastics, paints, coatings and possible surface treatments often lead to some adhesion difficulties. Due to the number of these surfaces, we recommend preliminary tests. If necessary, apply a primer layer to the joints (Primer for porous surfaces and Primer for non-porous surfaces). After applying the appropriate primer to the joint, it is necessary to wait for the time necessary for it to dry to prevent the non-evaporated solvent from causing bubbles to form in the sealant that has not yet hardened.

Recommended application temperature: between 5°C and 30°C. For better workability or in the case of low temperatures, we recommend storing the material at approximately 25°C before use. To ensure maximum seal durability, it is necessary to ensure free movement of the product in the joint. It is therefore imperative that the sealant does not adhere to the bottom of the joint. To do this, it is necessary to insert the FILTEK, a polyethylene rod of the same width as the joint (bottom of the joint), at the right depth, making sure that the depth of the joint is half the width.

Using the special gun, extrude the product and apply it into the joint, making sure that it is entirely in contact with both parts of the joint and with the bottom of the joint in the lower part. Extrude an even amount without trapping air. Avoid overlapping product in order to eliminate the possibility of leaving gaps.

The product should end with a smooth finish to ensure complete contact of the parts with the back of the material in the joint, this also helps to eliminate any air bubbles that may have formed during the application of the sealant. If you are using adhesive tape to obtain precise or clean lines on the joint, remove the covering tape while the product is still fresh.

To allow the POLITEK sealant to resume the movements of the materials without it detaching from the walls, it will be advisable to size the width of the joint by adopting the following formula:

$$b = \frac{e1}{a\%} \quad \text{where:}$$





b = width necessary to prevent the POLITEK from detaching from the edges

eI = withdrawal movement

$a\%$ = sealing working capacity

This product should be used within 24 hours of opening the cartridge or bag; otherwise, the sealant may harden inside.

LIMITATIONS

- POLITEK is paintable. However, some coatings can be damaged by material movements. We recommend preliminary tests
- Avoid exposure to high levels of chlorine (avoid sealing joints in swimming pools with chlorine)
- Avoid for aquarium construction
- Not recommended for Teflon, PE, PP or bituminous surfaces
- Do not use in the presence of a hardened silicone sealant
- Avoid contact with alcohol and other cleaning solvents during curing
- Do not apply when the condition of moisture vapor transmission from the material exists as it can cause bubbles to form in the product
- As long as the curing process is in progress, allow sufficient exposure to air
- The white color tends to turn yellow slowly when exposed to UV rays
- The final performance of POLITEK depends on the good design of the joint, an appropriate application and an adequate preparation of the joint
- POLITEK should not be used for structural glazing

PHYSICAL PROPERTIES

Chemical nature	Polyurethane
Consistency	Thixotropic paste
Maximum joint movement	25% of total movement capacity
Specific Gravity/Density (g/cm ³)	1.30 ± 0.02
Cross-linking speed	2mm/24h (20°C, 55% RH)
100% Elastic Modulus (AM)	0.35-0.45 N/mm ²
100% Elastic Modulus (BM)	0.15-0.25 N/mm ²
Open time at 23°C and 50% RH (film formation) (AM)	≥ 45'
Open time at 23°C and 50% RH (film formation) (BM)	≥ 75'
Curing time at depth at 23° and 50% RH (cross-linking)	≈ 2.0mm/24h
Shore A hardness (AM)	30-40
Shore A hardness (BM)	15-25
Elastic recovery	85%
Elongation at break	> 250%
Max elongation at break (AM)	≥ 600%
Max elongation at break (BM)	≥ 900%
Application temperature	+ 5°C / +35°C
Thermal resistance	- 40°C / +80°C
Dry residue	> 95%
Tear resistance	≥ 10 N/mm ²

PACKS

Standard colours: White – Grey – Black

300 ml cartridges

600 ml bags





SURRENDER

Yield of 1 x 300ml cartridge

Thickness (mm)	2	3	4	5	6	7	8	9	10
Length. Cord (m)	95	42	24	15	10,5	7,5	5,5	4,5	3,5

Yield of 1 bag of 600 ml

Thickness (mm)	2	3	4	5	6	7	8	9	10
Length. Cord (m)	190	85	47	30	21	15	11	9	7

STORAGE

POLITEK can be stored for 12 months in its original packaging at a temperature between 10° and 25°C in a cool and dry room. The storage temperature should never exceed 25°C for extended periods of time. Keep away from sources of moisture, heat sources and direct contact with the sun's rays.

ATTENTION

Contains isocyanates. Avoid any contact with the skin before cross-linking. In case of contact with eyes, wash immediately with water and seek medical attention.

Use only in well-ventilated areas.

Keep out of reach of children.

Consult the safety data sheet of the product.

Tools should be cleaned with acetone or butyl acetate before the sealant is fully cured. In case the product is already cured, abrasion is required.

LEGAL

The information contained in this technical data sheet, although representing the most advanced stage of knowledge, does not exempt the user from carrying out accurate preliminary tests in his own conditions of use and operation. Therefore, no liability is accepted for improper use of the product.

PROFESSIONAL PRODUCT

