



Rev 0
09/21



POLITEK

Single-component polyurethane elastomer sealant for construction



DESCRIPTION

POLITEK is a single-component polyurethane sealant specifically formulated for construction. 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 \(Alto Modulo elastico\)](#), high resistance, specific for horizontal joints
- ↓ [BM \(Basso Modulo elastico\)](#), highly elastic, specific for vertical joints

FEATURES AND ADVANTAGES

- Permanently elastic over a wide temperature range
- It does not run
- Does not collect dirt
- Excellent adhesion to all typical building materials
- Easy to extrude, machine, level
- Does not create filaments upon detachment
- Excellent resistance to aging and atmospheric agents
- Over-paintable with various water-based and solvent-based paints (preliminary tests are recommended)
- Excellent resistance to water and salt fog
- Good resistance to UV rays
- Medium resistance to diluted acids and bases
- Resistant to temperatures from -40 ° C to + 80 ° C.

APPLICATION

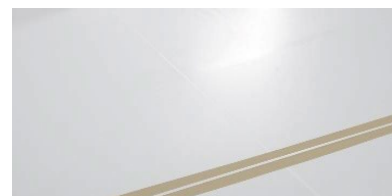
POLITEK has excellent adhesion to almost all materials and can be applied to all joints in construction, such as, sealing of:

POLITEK AM

- ↑ • Expansion and construction joints in horizontal applications
- Concentration and expansion joints in 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 coverings in general
- Connection joints between window and wall
- Connection joints between materials of different nature
- Joints between concrete, bricks, blocks, stone, ceramic, tiles, masonry, wood, aluminum, metal structures and plasterboard



TECHNICAL DATA SHEET



TEKNA CHEM S.p.A.

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- Perimeter joints of windows or doors
- Joints of water drains and suitable for sealing general plumbing structures in contact with water
- Parapets of decks and terraces
- Building roofing
- To reduce vibrations

RECOMMENDATIONS 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 of any impurities (dust or grease) and any other contaminants that could damage the adhesion.

Glass, metal and other non-porous surfaces must be free from 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 sandblasted or mechanically abraded and cleaned of dust. It is recommended to clean the concrete or concrete screeds with a brush with metal bristles

POLITEK has excellent adhesive ability without using 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 involve some adhesion difficulties. Given the quantity of these surfaces, we recommend preliminary tests. If necessary, apply a primer layer in 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.

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 durability of the seal it is necessary to ensure free movement of the product in the joint. It is therefore essential that the sealant does not adhere to the lower part of the joint. For this purpose it is necessary to insert the FILTEK, (a polyethylene round of the same width as the 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 in the joint, making sure it is in full contact with both parts of the joint and with the joint bottom. Extrude an even amount without trapping air. Avoid product overlaps in order to eliminate the possibility of leaving empty spaces. The product should finish 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 while applying the sealant. In the case of using adhesive tape to obtain precise or clean lines on the joint, remove the masking tape when the product is still fresh.

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

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

b = width necessary to avoid the detachment of the POLITEK from the edges

eI = shrinking movement

$a\%$ = sealing working capacity

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



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LIMITATIONS

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

PHYSICAL PROPIERTES

Chemical nature	Polyurethane
Consistency	Thixotropic paste
Maximum joint movement	25% of the total range of movement
Specific weight / Density (g/ cm ³)	1,30 ± 0,02
Crosslinking speed	2mm/24h (20°C,55% U.R.)
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% u.r (film formation) (AM)	≥45'
Open time at 23 ° C and 50% u.r (film formation) (BM)	≥75'
Hardening time in depth at 23 ° and 50% of u.r. (crosslinking)	≈ 2,0 mm/24h
Hardness Shore A (AM)	30-40
Hardness Shore A (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
Heat resistance	- 40°C / +80°C
Dry residue	> 95%
Resistance to tearing	≥ 10 N/mm ²

PACKAGES

Standard colors: White - Gray - Black
300 ml cartridges
Bags of 600 ml

OUTPUT

Output of 1 300 ml cartridges

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

Output 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



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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 place. The storage temperature should never exceed 25 ° C for extended periods of time. Keep away from sources of humidity, sources of heat and direct contact with the sun's rays.

RECOMMENDATION

Contains isocyanates. Avoid any contact with the skin before crosslinking. In case of contact with eyes, rinse immediately with water and consult a doctor.

Use only in well ventilated areas.

Keep out of reach of children.

Consult the product safety data sheet.

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

LEGAL NOTICES

The information contained in this technical data sheet, while representing the most advanced stage of knowledge, does not exempt the user from carrying out accurate preliminary tests in their own conditions of use and operation. We therefore decline all responsibility for improper use of the product.

PROFESSIONAL PRODUCT