



# pens® HI-TECH

Hybrids

Technical Data Sheet

**pens® HI-TECH** is a sealant elaborated based in a hybrid polymer with high module and with excellent physical-chemical properties, which allow a long term retention of its elasto-adhesive properties.

## Product Data

PROPERTIES	VALUE	TEST METHOD
Chemical base	Hybrid	
Aspect	Soft paste	
Skin over time	20-40 minutes (73.4 °F, 50% RH)	ASTM-C-679-15
Curing Rate	2.5 mm/day (73.4 °F, 50% RH)	ASTM D-1640-16
Density	1.38-1.41 g/ml	ASTM-D1475-13*(1)
Application temperature	41 °F to 104 °F	
Service Temperature	-40 °F to 176 °F	
Elongation	>400%	ISO 37-rod-1
Tensile Strength	2.2 N/mm <sup>2</sup>	ISO 37-rod-1
Shore A Hardness	35-45	ISO 868
Movement Capability	±35%	ASTM-C-719-14(19)*(2)

Information obtained from laboratory tests.

## Uses

**pens® HI-TECH** has been designed for:

- Elastic, hermetic or watertight durable seals or bonding between porous with porous materials and smooth with porous materials.
- Perimeter joint seals of interior and exterior windows and doors.
- Seals of joints between materials like wood, metals, natural stone and aluminum.
- Seals of dynamic joints in concrete, masonry and irrigation channels elements.
- Seals of cracks in pools and tanks.
- Sealing of cracks in ceramic elements like WC tanks
- To paste small pieces like Venetian mosaics in pools without removing water.

## Advantages

- It could be painted once cured.
- Low odor.
- Excellent movement capacity.
- It does not release solvents.
- It could be applied in wet surfaces or during raining
- Fast curing.
- Not corrosive.

## Application

The surfaces to be sealed shall be firm, dry, clean free of dust, grease, oil, water and old sealant. Porous surfaces shall be cleaned with brush or applying compressed air to remove all loose particles. In case of smooth surfaces (like glass, metal, etc.) it shall be done a cleaning with two cleaning clothes, consisting in passing a (lint free) cleaning clothe impregnated with isopropyl alcohol, and removing immediately all the impurities with a clean and dry cleaning clothe. Place a masking with masking tape on the surfaces to limit the area to be sealed. Introduce **pens® HI-TECH** in a caulk gun of cartridge, or for sausage depending of presentation cut the upper part of the cartridge, or in case of sausage cut close to the metallic staple, and remove it completely; then place the pipette and cut at 45° calculating the width of the joint to be sealed. Pull the trigger to press the piston and the product will flow on the joint. Apply the sealant like a cord on the surface to be sealed. It shall be left minimum a section of 6 x 6 mm and maximum 1 in. Then pass again in opposite direction of the first application, with a curved spatula to penetrate in the joint as necessary, for better adhesion and to break the air bubbles that may be trapped during the application, at the end of application remove the masking in opposite direction to application in a continuous but controlled movement. The excess could be removed before curing with a cloth dampened in isopropyl alcohol.



## Recommendations

- Perform tests under actual application conditions to guarantee its proper operation.
- Do not apply in wet surfaces or materials in curing process.
- Even below water mold is formed, therefore is recommended to clean the surface scratching with a brush or cloth before applying the sealant.
- To form a proper joint of the sealant and prevent the adhesion to a third surface, it is recommended to be used as a support for polyolefin cylindric extrusion SOF Rod or polyethylene HBR (see technical sheet).
- The ratio between width and depth for joints of 6 mm and up to 10 mm width will be 1 to 1 (width = depth) and in joints larger than 10 mm and up to 25 mm, it will be of 2 to 1 (depth = width/2).

## Maintenance

- It does not require any maintenance, however.
- If the seal is damaged, replace the damaged section, cleaning the surface before applying the new seal.

## Precautions

- The sealant shall not be applied in completely close area, due it is required relative humidity for vulcanization.
- The non-cured product could cause eyes and skin irritation with prolonged contact. In case of discomfort, wash thoroughly with water for 15 minutes and seek medical advice immediately.
- Keep out of the reach of children.

## Limitations

- In butt joints between glasses of any kind.
- In applications where is required the compliance with FDA or USDA.
- In applications of any kind of plastics or polycarbonates.

## Presentation

### Packaging and Colors



- White
- Gray\*

\*Special colors only under request

## Coverage

A cartridge yields 7.75 m, in joints of 6 x 6 mm, considering a 7% waste.

## Shelf Life

12 months kept in a fresh and dry storage, in its original packaging at a 21 °C (70 °F) temperature and 50% of atmospheric moisture.

## Technical Support

Productos Pennsylvania's Technical Support is at your service, assisting you with:

Guidance in how to apply this or any of our products.

Blueprint reviews.

Joint dimension calculus.

Compatibility and adhesion testing of our sealants with different materials.

## NOTE:

Productos Pennsylvania S.A de C.V. provides technical assistance when required. Please contact our Technical Department regarding use and application of this product. It is the user's responsibility to test the product and its uses before application.

Productos Pennsylvania, S.A. de C.V.

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Date of production: **March 2023**

the caulking expert

