

pens® HI-TECH

technical data sheet · hybrid

pens HI-TECH is a Medium modulus, hybrid polymer sealant with excellent physical and mechanical properties, which allow it to keep its elastic-adhesive capability for a long time.

Product Data

PROPERTIES	VALUE	TEST METHOD
<i>Basis</i>	Hybrid	
<i>Appearance</i>	Paste	
<i>Skin over time</i>	20-40 minutes (25 °C y 50% HR)	ASTM-C-679-87
<i>Full cure</i>	2 mm/day (25 °C y 50% HR)	ASTM-D-1640
<i>Density</i>	1.38-1.40 g/ml	ASTM-D1475-98
<i>VOC</i>	<42 g/L	
<i>Application temperature</i>	5 °C to 40 °C	
<i>Service temperature</i>	-40 °C to 80 °C	
<i>Elongation</i>	>600%	ASTM-D-412-98a
<i>Tensile strenght</i>	22.4 kgf/cm ²	ASTM-D-412-98
<i>Hardness, Shore A</i>	35	ASTM- C-661-98
<i>Movement capability</i>	±35%	ASTM-C-719
<i>U.V. Resistance</i>	Very good	ASTM-G-154



Uses

pens® HI-TECH has been fundamentally designed to:

- Seal elastic, hermetic, waterproof and lasting joints among porous and smooth materials.
- Seal interior and exterior window and door framing.
- Seal wood, metal, stone and aluminum joints.
- Seal dynamic joints in concrete, masonry and irrigation channels.
- Seal pool or pond cracks (without removing the water).
- Seal cracks in ceramic materials such as toilet tanks, even with water in them.
- Glue small pieces such as Venetian mosaic in pools without draining them.

Advantages

- It can be painted once it is dry.
- Low odor.
- Excellent movement capability.
- It does not release solvents.
- It could be applied when raining or in humid, wet and underwater surfaces.
- Fast cure rate.
- Salt moisture resistant.
- Non-corrosive.

Application

Make sure that surfaces about to seal are steady, dry, clean, and free from dust, grease, oil, water or old sealant. Clean porous surfaces using a brush or pressured air to remove all loose particles. For smooth surfaces (such as glass or metal), clean using a two-rag wipe technique, that consists in wiping the material using a no lint rag wet with isopropyl alcohol, use the second rag to wipe the wet alcohol from the surface before it evaporates, removing all contaminants. Mask where necessary using Masking Tape on the surface to delineate the area before applying the sealant. Place *pens® HI-TECH* in the caulking gun, cut the upper part of the cartridge, then place the nozzle and cut it in a 45° angle calculating the joint width. Push the gun's trigger pumping the product towards the joint. Apply the sealant on the surface maintaining a regular cord. The minimum joint must be of at least 7 x 7 mm and of maximum 10 mm. Tooling must be done in the opposite way of application using a curved spatula forcing the sealant into contact with the sides of the joint achieving a better adhesion and eliminating possible internal voids. At the end of the application, remove the mask detaching it in a continuous and steady move in the opposite way of application. Remove the excess of sealant using a rag wet in isopropyl alcohol right after the application.

Recommendations

- Testing is suggested under real application conditions to ensure its correct performance.
- Do not apply on wet surfaces or curing process materials.
- Wait until it is completely dry to paint.
- When sealing cracks in pools or ponds, it is recommended to seal from the inside, taking advantage of the positive pressure generated by the water. Do not apply against the water flow for the negative pressure will not allow the sealant adhere to the surface.
- As mold is formed even under the water, it is recommended to clean the surface using a cloth or brush before applying the sealant.
- Though this product could be applied under water, it is important to consider all immersed sealants have a minor life period.
- To create an adequate joint and avoid contact with a third surface, it is recommended to use a cylindrical polyethylene or polyurethane extrusion: **Sof Rod or HBR** (see data sheet).
- Joint range of width and depth from 6mm to 10mm will be 1:1 (width = depth), and for joints wider than 10mm and up to 25mm it will be 2:1 (depth = width / 2).

Maintenance

- It does not require any maintenance, however if the seal suffers any damage, clean the surface before applying and replace the damaged section with new sealant.

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.

Precautions

- Sealant must not be applied in closed areas for it needs atmospheric moisture to vulcanize.
- Uncured product can cause irritation in eyes and skin if exposed for too much time. If bother persists, rinse generously, passed 15 minutes consult with a doctor.
- Do not leave in children's reach.

Limitations

- Do not apply in joints among glasses of any kind. Applications where FDA or USDA is required.
- Do not apply in plastics or polycarbonate of any kind.

Presentation

Packaging and colors



- White
- Gray*

*Consult colors and minimums of manufacture.

Coverage

One cartridge lasts 7.75 m, in 6 x 6 mm joints, 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 dimensions calculus.

Compatibility and adhesion testing of our sealants with different materials.

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