

duretán® is a multi-purpose and multi-substrate polyurethane sealant, designed to seal both construction joints with severe movement and grouting, sheet seals in roofs, joints in metals, and general sealing.

Technical Information / duretán® (cardboard cartridge)

PROPERTIES	VALUE	TEST METHOD
Chemical base	Polyurethane	
Aspect	Soft paste	
Skin over time	10-18 hours (77 °F, 50% HR)	ASTM-C-679-87
Curing ratio	1-2 mm/day (77 °F, 50% HR)	ASTM-D-1640
Density	1.30-1.32 g/ml	ASTM-D-1475-98
VOC	33.36 g/L	EPA24
Application temperature	41 °F to 104 °F	
Service Temperature	-22 °F to 158 °F	
Elongation	Aprox. 550%	ASTM-D-412-98a
Tensile Strength	170.68-213.35 lbf/in ²	ASTM-D-412-98a
Shore A Hardness	40-45	ASTM-C-661-98
Movement Capability	±25%	ASTM-C-719
U.V. Resistance	Good	

Information obtained from laboratory tests.

Technical Information / duretán® (aluminum cartridge / sausage)

PROPERTIES	VALUE	TEST METHOD
Chemical base	Polyurethane	
Aspect	Soft paste	
Skin over time	120 minutes (73.4 °F, 50% HR)	ASTM-C-679-87
Curing ratio	3 mm/day (77 °F, 50% HR)	ASTM-D-1640
Density	1.20-1.22 g/ml	ASTM-D-1475-98
VOC	<81.1 g/L	
Application temperature	41 °F to 95 °F	
Service Temperature	-22 °F to 176 °F	
Elongation	>640%	ASTM-D-412-98a
Tensile Strength	>193.44 lbf/in ²	ASTM-D-412-98a
Shore A Hardness	40-43	ASTM-C-661-98
Movement Capability	±25%	ASTM-C-719
U.V. Resistance	Good	

Information obtained from laboratory tests.

Uses

duretán® has been mainly developed for:

- Elastic, hermetic or watertight durable seals or bonding between porous with porous materials and smooth with porous materials.
- Seals on metals, iron, aluminum sheets, and multiple materials used in the industry and construction.
- Seals of constructive joints with sever movement between materials like masonry, retaining walls and cement boards.
- Seals on natural stones.
- Perimeter seals between aluminum and walls in high-rise buildings.
- Seals in galvanized sheet roofs and seals between metallic sheets.
- Seals in walls, floors or false ceiling corners that require to turn into curve surfaces to prevent the formation or accumulation of bacteria's, in surgery rooms or laboratories.
- Seals in wooden floors, paneled, beams and roofs of large size.



Advantages

- Comply and exceed the requirements of standard ASTM C-920, class 25, type NS.
- It doesn't stain natural stones.
- It could be covered with waterproofing or scratch once cured.
- Excellent adhesion to different substrates without using primer.
- Excellent aging and weather resistance.
- Excellent resistance to salt humidity.
- It does not drip in vertical joints or over head (in a maximum joint width of 20 mm).
- It resists the attack of microorganisms.
- Once vulcanized it could be in contact with drinking water.
- Resist the passing of vehicles and forklifts.
- Resists small spills of oils and gasoline.

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 surface: to limit the area to be sealed. Introduce duretán®; a caulk gun of cartridge, or for sausage depending 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 the 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.
- Paint until it is completely cured.
- 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 cylindrical 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).
- It is important to consider that this sealant is not developed to be in constant immersion in water because it will have a smaller lifetime.

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 closed areas, due to the 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

- White color exposed it may have a small change of color.
- Do not use in glasses and plastics.
- Do not use in contact with asphalts.

Presentation

Packaging and Colors



*Special colors and compressible tube only upon request

Coverage

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

A sausage yields 15.50 m, in joints of 6 x 6 mm, considering a 7% waste.

Shelf Life

18 months cardboard cartridge.

14 months aluminum cartridge and sausage.

12 months in cool dry warehouse, in its original packaging with temperatures of 21 °C (70 °F) and 50% relative humidity.

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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the caulking expert

