TECHNO POTTING™ 3011 FR

Fire-retardant, polyurethane potting resin

MIXING RATIO
2A : 1B
by volume

CHARACTERISTICS

- Low viscosity
- Waterproof
- High wear resistance
- 100% solid
- Excellent chemical resistance
- Flexible with high resistance to tension, elongation, and tearing
- High resistance to environmental elements

SANS COV / VOC FREE 0%

Contact
POLYMÈRES TECHNOLOGIES
For more information:
support@polymerestechnologies.com

DESCRIPTION

TECHNO POTTING™ 3011 FR is a versatile, two-component, 100% solids elastomeric polyurethane resin.

This product is formulated primarily for the protection and enclosing of electronic parts requiring the UL94-V0 flame retardant standard. This system demonstrates high resistance to immersion and humidity. It adheres to a multitude of substrates such as metals, certain plastics like nylon, polycarbonate, styrene and PVC, and ceramics, among many others.

Ideal for the protection of electrical and electronic components which require chemical resistance and a level of elongation allowing the movements of the housing to be followed during thermal shock. Demonstrates a high level of electrical insulation.

Typical uses: Road and recreational vehicles, aerospace, and defense, medical equipment, among many others.

INSTRUCTIONS

It is recommended to mix part A well to disperse any deposits before adding part B.

Add 54 parts B to 100 parts A by weight and mix well until uniform in color. Minimize air infiltration during mixing. **Do not apply if the temperature is below 13°C (55°F) and the relative humidity is above 80%, as microbubbles may form on the surface.**

Using a good release agent such as TECHNO RELEASE™ 113 will facilitate the release operation if required.

Uncured material can be cleaned using our eco-friendly POLY CLEANER™.

See PRECAUTIONS on last page for more information on storing TECHNO POTTING™ 3011 FR.

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TYPICAL PROPERTIES (AT 22 °C/72 °F)	PART A	PART B	MIXTURE
VISCOSITY	3,600	600	2,200
CONSISTENCY	Liquid		
DENSITY (g/cm^3)	1.09	1.21	1.10
MIXING RATIO BY VOLUME	2	1	2/1
MIXING RATIO BY WEIGHT	100	54	100/54
COLOR	Dark grey	Light yellow	Dark grey
POT LIFE (200cc)	30 minutes		
HANDLING TIME	8-12 depending on volumic mass		
FULL CURE*	7 days		

*After the material has solidified, complete curing can be accelerated to 51.7°C (125°F).

PHYSICAL PROPERTIES (SOLID STATE AFTER 7 DAYS AT 22°C/72°F)

TESTS	METHOD	RESULTS	
HARDNESS	ASTM D 2240-80	Shore A	85
TENSILE STRENGTH	ASTM D 638 Type IV	MPa*	8-10
ELONGATION AT RUPTURE	ASTM D 638 Type IV	%	≥ 400
TEAR RESISTANCE	ASTM D 624 Mold C	N/mm	30-40
ABRASION RESISTANCE	ASTM D 4060 (Taber CS 17) – 1000 gr 1000 turns	Loss in gr	0.014
WATER ABSORPTION	ASTM D 570	%	0.026
THERMAL LINEAR EXPANSION COEFFICIENT	ASTM D 696	mm/mm/C	13.1 x 10^{-5}
EXOTHERMAL TEMPERATURE (200 cc)	ASTM 2471	°C	68
RESISTANCE TO FIRE	ASTM D 635	Self-extinguishing	

*1 MPa = 145 lbs/po^2

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PRECAUTIONS

- Consult material safety data sheet prior to use.
- Normal health and safety measures should be observed when handling this product.
- Ensure good ventilation.
- Wear gloves, safety glasses, and protective clothing.
- Do not use part A without its part B, and vice versa. Mix parts A and B separately before use.
- Once the container is opened, POLYMÈRES TECHNOLOGIES can no longer be held responsible for this product.
- Shelf life of this product in original containers is one (1) year from the date of purchase, under recommended storage conditions.
- Sealing the lid: several resins are sensitive to ambient humidity. In order to preserve the product, make sure to cover the product under a nitrogen atmosphere. Store partial containers of part B under dry nitrogen atmosphere.
- Keep from freezing. Store this product at 22°C (72°F).

It is recommended to follow provincial and federal safety regulations. In case of eye contact, rinse well with water. In case of skin contact, rinse with soap and water. Keep away from children.

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