

PC-3212 Impregnating Resin

Thixotropic Urethane System; Shore D 70—75

PC-3212 is a novel two component, thixotropic, room temperature cured, tough elastomeric urethane system formulated for reverse osmosis filter membranes. A significant feature of this system is that it can reduce processing time by over 60%. The typical air cure time for RO filters with this system is 6 hours, versus 24 hours for current systems. The cured PC-3212 urethane system has a high degree of hydrolysis resistance and has very little hardness loss in water at elevated temperatures (up to 85°C).

PC-3212 has demonstrated very low veining and is suitable for food, wine and beverage applications. In addition, raw material composition will pass NSF requirements. PC-3212 is not based on hydroxyl-terminated polybutadiene chemistry and, therefore, does not have any associated U.S. government export controls.

Key Features

- Can be used for NSF applications
- Broad pH resistance with high thermal stability

Typical Uncured Properties

Color	
Part A (Isocyanate Prepolymer)	Straw
Part B (Polyol Resin)	Clear Yellow
Mixed	Straw
Viscosity @ 25°C (± 1°C); cPs	
Part A; Brookfield #2 @ 10 rpm	2,650
Part B; Brookfield #7 @ 10 rpm	62,500
Initial Mixed; Brookfield #7 @ 10 rpm	8,800
Density @ 25°C (± 1°C); Lbs./Gal. (g/cm ³)	
Part A (Isocyanate Prepolymer)	9.46 (1.13)
Part B (Polyol Resin)	8.57 (1.03)
Mixed	9.04 (1.08)

Mixing Specifications & Characteristics

Mix Ratio	
Parts by Weight	1.00 part A : 0.90 part B
Parts by Volume	1.00 part A : 1.00 part B
Gel Time @ 25°C (± 1°C); min:sec	
100 gram Mass	20:00—25:00
Full Cure Cycle	7 days

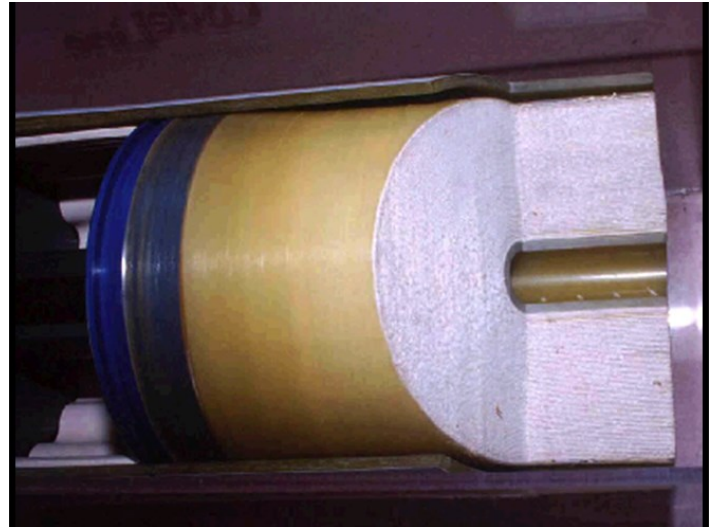
Typical Cured Properties

Color	Straw
Hardness; Shore D	70-75
Tensile Strength; psi	4,650
Elongation; %	7.5

Limited Warranty: Polyset Company Inc. makes no warranty, expressed or implied, including any warranty of merchantability or fitness for a particular purpose. The sole remedy of Purchaser for any claim concerning this product, including, but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the discretion of Polyset Company Inc. Any claims concerning this product shall be submitted in writing within one year of the delivery date of this product to Purchaser and any claims not presented within that period are waived by Purchaser. IN NO EVENT SHALL POLYSET COMPANY INC. BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDES LOSS OF PROFITS) OR PUNITIVE DAMAGES.

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Processing Instructions

For good results, automatic mixing and dispensing equipment should be used. Please consult with Polyset technical staff before making final processing decisions.

Storage Information

Keep away from flames. Material should be used once containers are opened. Long term storage of opened material should be under nitrogen. Shelf life of both Parts A & B is 6 months @ 25°C (77°F) in unopened containers. Storage temperatures for both Part A (Isocyanate) and Part B (Polyol) should be maintained between 20–35°C (68–95°F) at all times, as exposure to temperatures below 20°C (68°F) may result in product crystallization. If Part A (Isocyanate) remains crystallized for an extended period of time, product degradation can occur.

If solidification of either Part A or Part B should occur because of exposure to temperatures below 20°C (68°F), the product can be reheated up to 60°C (140°F) in a well ventilated oven for the minimum amount of time necessary to render it clear. Excessive heating of the Part A (Isocyanate) may cause dimerization, loss of reactivity, and increase in viscosity. In the event of crystallization, please contact Polyset for recommendations.

Safety Information

Please refer to product Safety Data Sheets for detailed information regarding the safe handling of this product.