

PC-3100 Urethane Casting System

Black, Flexible, Chemically-Resistant Elastomer

Technical Bulletin

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PC-3100 is a two component, room temperature cured, unfilled, tough elastomeric urethane adhesive designed for air, gas and oil filters. The system is formulated to possess excellent physical properties and chemical resistance to gasoline, hydraulic fluids and oils at a low durometer. The PC-3100 system was developed to replace plastisol for gasket and end cap applications.

Key Features

- Low Mixed Viscosity for Ease of Processing.
- Flexible, yet Tough.
- Excellent Adhesion to a Variety of Substrates.
- Excellent Chemical Resistance.
- Convenient 4:1 Mix Ratio.
- Quick Demold Time.



Typical Uncured Properties

Color		
PC-3100 Resin (Polyol Component)		Black
PC-3100 Hardener (Isocyanate Component)		Dark Amber
PC-3100 Mixed		Black
Viscosity (Brookfield) @ 25°C ± 1°C (77°F ± 2°F); cPs		
PC-3100 Resin		4,000
PC-3100 Hardener		50
PC-3100 Initial Mixed		2,500
Density @ 25°C ± 1°C (77°F ± 2°F); Lbs./Gal. (g/cm ³)		
PC-3100 Resin		9.83 (1.18)
PC-3100 Hardener		10.20 (1.22)
PC-3100 Mixed		9.90 (1.19)

Mixing Specifications & Characteristics

Mix Ratio		
Parts by Weight		100 parts Resin : 24 parts Hardener
Parts by Volume		4 parts Resin : 1 part Hardener
Processing Time @ 25°C ± 1°C (77°F ± 2°F); min:sec		
Gel Time (124 gram mass; 250 mL beaker)		4:30
Turnover Time		10:00
Full Cure Cycle		7 Days

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Chemical Resistance, 28 day exposure	% Weight Change	% Hardness Change
Gasoline @ 77°F	2.54	-6.9
Hydraulic Oil @ 140°F	-4.40	-5.2
Water @ 77°F	2.15	-9.5

Typical Cured Properties

Color	Black
Hardness; Shore A	60
Tensile Strength; psi	700
Elongation; %	470
Tear Strength (Die C); Lbs./in.	130

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 container is opened. Long term storage of opened material should be under nitrogen. Shelf life of both PC-3100 Resin and PC-3100 Hardener is 6 months @ 25°C (77°F) in unopened containers.

Safety Information

Refer to product Safety Data Sheets for detailed safety & handling information.