

Product Description

Prepol® PC 11-95V1 is a polyester-based, MDI terminated urethane prepolymer. When cured with 1,4-butanediol, this prepolymer produces a high-quality elastomer of 95 Shore A hardness.

This tough, high-quality elastomer is characterized by:

- High tear strength
- Low compression set
- Excellent dynamics properties
- Quick demold

Recommended Uses

Prepol® PC 11-95V1, at processing temperature, is low in viscosity and has a pot life suitable for both machine and hand-batching procedures.

Storage and Handling

Storage temperatures of 59-86°F (15-30°C) are recommended for a shelf life of two years. Partially filled containers should be blanketed with dry nitrogen. This prepolymer contains free 4,4'-diphenylmethane diisocyanate (MDI) which is known to cause irritation to eyes, skin, mucous membranes and respiratory system.

Avoid contact with eyes, skin, and clothing, and wash thoroughly after handling. Avoid breathing the vapor. Use only with adequate ventilation.

Recommended Meltdown Procedure

Devices such as melting ovens, thermostatically controlled warming blankets or drum heaters can be used for preheating Prepol PC 11-95V1. Approximate preheat times at 70°C (158°F) are:

5 gallon pail 16 - 24 hours

55 gallon drum 36 - 48 hours

Resins exposed to temperatures lower than 20°C during shipment and / or storage may require longer meltdown times.

It is recommended that containers of Prepol PC 11-95V1 be rolled prior to use to ensure homogeneity.

Clearance Status

This product is compliant with the requirements of the Toxic Substances Control Act (TSCA) Inventory.

CAS Number

Proprietary

Prepolymer Typical Properties

NCO%	9.39 +/- 0.20 (9.19 – 9.59)
State 77°F (25°C)	liquid
Viscosity @ 77°F (25°C)	400 typical
Specific Gravity @ 77°F (25°C)	1.22
Color, Gardner 140°F (60°C)	4.0 max
Appearance @ 140°F (60°C)	clear to slightly hazy liquid

Cast Elastomer

Pre-Pol® PC 11-95V1	100 pts
1,4-butanediol	9.6 pts.
% of Theory	95

Processing Characteristics

Prepol® PC 11-95V1	176°F (80°C)
1,4-butanediol	77°F (25°C)
Mold	240°F (115°C)
Cure @ 240°F (115°C)	1 hr
Postcure, hours @ 240°F (115°C)	16 hrs

Typical Physical Properties

All samples were conditioned 7 days at 24°C (75°F) and 50% RH before testing.

Hardness Shore A	95
100% Modulus	1,800 psi (12.4 MPa)
300% Modulus	4,000 psi (27.6 MPa)
Tensile Strength	5,000 psi (34.5 MPa)
Elongation at Break, %	320%
Tear Strength, ASTM D470	190 pli (33.3 kN/m)
Tear Strength, Die C, ASTM D624,	650 pli (113.8 kN/m)
Bashore Rebound	30%
Compression Set, Method B, % after 22 hours @ 158°F (70°C)	35
Specific Gravity	1.24

*Property values are for the specific compositions shown. Additives of any kind may alter some or all the properties. These data should not be used alone as a basis of design or specification.



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