

Product Description

POLYCOAT PRE-POL® PC 20-85 is an MDI terminated polyether prepolymer that yields high property elastomers in the 85A hardness range, when cured with 1,4 Butanediol. Some of its unique properties include:

- Excellent abrasion resistance
- Excellent hydrolytic stability
- Excellent low- temperature properties
- High Resilience

Vulcanizates from PRE-POL® PC 20-85 are uniquely suited for a wide variety of applications. Examples are wheels and pipe linings. As with all polyurethane products, application and field testing is recommended to determine suitability of the product combination for a specific application.

PREPOLYMER SPECIFICATIONS

NCO% 6.09 – 6.56

Viscosity, poise @ 212°F (100°C) 6.0 – 9.0

Specific Gravity @ 212°F (100°C) 1.01

Appearance @ 77°F (25°C) Clear viscous liquid

Color, Gardner 0–2

Flash Point, Cleveland Open Cup >380°F (193°C)

Solubility Soluble in aromatic or chlorinated hydrocarbons, ketones and esters

Storage Stability Excellent in the absence of moisture and heat

Amine Equivalent 640 - 690

PROCESSING CONDITIONS

Pre-Pol® PC 20-85 (6.70% NCO) 100 pts

1, 4 Butanediol (95% theory) 6.51 pts

MIXING AND CURING

Prepolymer temperature 200°F (93°C)

1, 4 Butanediol temperature 77–158°F (25–70°C)

Mold temperature 240°F (115°C)

Cure, hours at 1 at 240°F (115°C)

Postcure, hours at 240°F (116°C) 16

Working Life, minutes 6

VULCANIZATE PROPERTIES

Test specimens conditioned one week at 75°F (24°C) and 50% RH before testing.

Hardness, durometer A 85

100% Modulus, psi 880 ± 50 (6.06 ± 0.3 mPa)

300% Modulus, psi 1726 ± 200 (11.9 ± 1.4 mPa)

Tensile Strength, psi 5370 ± 300 (37 ± 2.1 mPa)

Elongation at Break, % 520 ±50

Tear Strength (ASTM D-470) psi 76 ± 5 (0.53 ± 0.03 mPa)

Tear Strength (Die C) psi 480 ±20 (3.31 ± 0.14 mPa)

Compression Set (Method B), % After 22 h at 158°F (70°C) 30

Resilience (Rebound), % 60

Lower durometers in the 60A to 85A range can be achieved with PC 20-85 by combining PC 90-20 curative with 1, 4 Butanediol. Contact your POLYCOAT representative for further information.



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