

TECHNICAL DATA SHEET

PX 1000 NA

POLYURETHANE CASTING SYSTEM FOR TECHNICAL AND PROTOTYPE PARTS – 74 SHORE D HARDNESS

DESCRIPTION

Polyurethane Casting system for use with silicone molds prototype parts and mock-ups whose mechanical properties are close to those of thermoplastics.

APPLICATIONS

- *Prototype parts and mock-ups*
- *Flexural modulus 200,000 psi*
- *Thermoplastic aspect*
- *Can be painted*

PROPERTIES

- *Very low viscosity*
- *Long pot-life*
- *Flexural modulus 200,000 psi*
- *Good overall mechanical properties*
- *167°F Tg heat resistance with post-cure*

PHYSICAL PROPERTIES

Handling Properties @ 77°F (25°C)				
	Units	Part A	Part B	Mixed
Composition		Isocyanate	Polyol	
Mix Ratio (by weight)		100	100	100/100
Aspect		Liquid	Liquid	Liquid
Color	Visual	Light to dark amber	Clear	Off-white
Specific Gravity	lbs./gal (g/cc)	9.6 (1.15)	8.5 (1.02)	8.8 (1.06)
Viscosity	Cps	60	175	100
Pot Life (200 gram mass)	Minutes			15 - 20

Typical Physical Properties @ 77°F (25°C) ⁽¹⁾			
	Test Method	Units	Test Results
Cured Color	Visual		Bright white
Hardness	ASTM D-2240	Shore D	74
Tg (TMA)	ASTM E 1545-00	°F (°C)	167 (75)
Coefficient of thermal expansion (TMA)	ASTM E 1545-00	10 ⁻⁶ °F ⁻¹ /(10 ⁻⁶ °C ⁻¹)	56 (100)
Flexural Strength	ASTM D-790	psi (MPa)	7,000 (48)
Flexural Modulus	ASTM D-790	psi (MPa)	200,000 (1,380)
Tensile Strength	ASTM D-638	psi (MPa)	6,000 (41)
Tensile Modulus	ASTM D-638	psi (MPa)	100,000 (690)
Elongation	ASTM D-638	%	8
Compressive Strength	ASTM D-695	psi (MPa)	7,000 (48)
Compressive Modulus	ASTM D-695	psi (MPa)	175,000 (1,210)
Impact Strength notched	ASTM D 256-05	Ft.- lb/in ² (kJ/m ²)	2.9 (6)
Linear shrinkage		%	0.1
Maximal casting thickness		In./(mm)	0.2 (5)
Demolding time @ 73°F (23°C)		hours	4
Complete hardening time @ 73°F (23°C)		days	4

⁽¹⁾ Average values obtained on standard specimens/Postcure 12 hr at 158°F (70°C)

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- Ensure good ventilation.
- Wear gloves, glasses and protective clothes.

For further information, please consult the Safety Data Sheets.

STORAGE CONDITIONS

- This product has a shelf life of 12 months for the resin and hardener as indicated by the expiration date on the container when stored in original unopened containers. Store closed containers at 65°F-85°F (18°C-29°). Partially used containers must be flushed with dry nitrogen and resealed. Materials are sensitive to moisture contamination.

PACKAGING

Packaging information on request, please contact your local sales representative or find your local contact on www.sikaadvancedresins.us

LEGAL NOTICE

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February 19, Version 01 /2021

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