

# Smooth-Cast® 321

Polyurethane  
Smooth-On, Inc

Message:

The Smooth-Cast® 320 Series consists of ultra-low viscosity casting resins that yield virtually bubble-free off-white castings. The Smooth-Cast® 320 resins are sister products to our popular Smooth-Cast® 300 Series of bright white plastics, but are easier to color using SO-Strong® or Ignite® color tints. Smooth-Cast® 320 series is easy to mix and pour, offering the convenience of a 1A:1B by volume or 100A : 90B by weight mix ratio. The Smooth-Cast® 320 Series resins readily accept pigments and fillers (such as URE-FIL® 3, 5 and 7 from Smooth-On). Fully cured castings are tough, durable, machinable and paintable. They resist moisture and mild solvents. Applications for Smooth-Cast® 320 Series resins include reproducing small to medium size sculptures, making prototype models, special effect props, decorative jewelry and taxidermy (bones, antlers, teeth etc.).

General Information			
Features	Durable		
	Good Colorability		
	Good Toughness		
	Low Viscosity		
	Machinable		
	Moisture Resistant		
	Paintable		
	Solvent Resistant		
Uses	Decorative Parts		
	Jewelry		
	Modeling Material		
Appearance	Off-White		
Processing Method	Casting		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05	g/cm³	ASTM D1475
Specific Volume	0.954	cm³/g	ASTM D1475
	100A:90B by weight		
Mixing Ratio	1A:1B by volume		
Molding Shrinkage - Flow	0.70	%	ASTM D2566
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	70		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	951	MPa	ASTM D638
Tensile Strength	20.7	MPa	ASTM D638
Tensile Elongation (Break)	8.0	%	ASTM D638

Flexural Modulus	758	MPa	ASTM D790
Flexural Strength	24.1	MPa	ASTM D790
Compressive Modulus	278	MPa	ASTM D695
Compressive Strength	24.5	MPa	ASTM D695
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	60.0	°C	ASTM D648
Thermoset	Nominal Value	Unit	Test Method
Pot Life	7.0 to 9.0	min	
Thermoset Mix Viscosity	80.0	cP	ASTM D2393
Demold Time <sup>1</sup> (23°C)	30	min	
NOTE			

1. Cure Time

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#### Recommended distributors for this material

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