

Polyurethane

Smooth-On, Inc

Message:

TASK® 4 is a unique polyurethane casting resin that is very strong when cast in Ultra-Thin sections ranging from 0.03" to 0.50"(0.075cm to 1.27cm). TASK® 4 has a very low mixed viscosity, ensuring flawless pick-up of even the finest detail. Cured plastic exhibits very low shrinkage which is why this plastic has become a favorite of prototype and design professionals throughout the world. Pot life is 20 minutes and cure time is 16 hours at 73°F/23°C. Vibrant colors and color effects are possible by adding SO-Strong® color tints. Fully cured models made from TASK® 4 are tough, durable, machinable and paintable. They resist moisture and mild solvents. Applications for TASK® 4 include making prototype and architectural models, model toys, durable miniatures, ultra-thin mechanical parts and special effect props.

General Information				
Features	Durable			
	Good Colorability			
	Good Toughness			
	High Strength			
	Low Shrinkage			
	Low Viscosity			
	Machinable			
	Moisture Resistant			
	Paintable			
	Solvent Resistant			
Uses	Modeling Material			
	Thin-walled Parts			
	Toys			
Appearance	lvory			
Processing Method	Casting			
Physical	Nominal Value	Unit	Test Method	
Specific Gravity	1.16	g/cm ³	ASTM D1475	
Specific Volume	0.863	cm³/g	ASTM D1475	
Mixing Ratio	100A:100B by weight			
Molding Shrinkage - Flow	0.35	%	ASTM D2566	
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness (Shore D)	83		ASTM D2240	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus	896	MPa	ASTM D638	
Tensile Strength (Break)	44.8	МРа	ASTM D638	
Tensile Elongation (Break)	4.0	%	ASTM D638	
Flexural Modulus	1410	MPa	ASTM D790	
Flexural Strength	62.1	MPa	ASTM D790	

Compressive Modulus	517	MPa	ASTM D695
Compressive Strength	51.0	MPa	ASTM D695
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8			
MPa, Unannealed)	43.3	°C	ASTM D648
Thermoset	Nominal Value	Unit	Test Method
Pot Life (23°C)	20	min	ASTM D2471
Thermoset Mix Viscosity	250	cP	ASTM D2393
Demold Time ¹ (23°C)	960	min	
NOTE			
1.	Cure Time		

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