

# Smooth-Cast® 380

Polyurethane

Smooth-On, Inc

## Message:

Smooth-Cast® 380 is a filled, high density casting resin formulated for a variety of tooling applications. This no-odor resin features a convenient 1A:1B mix ratio by volume, a 6 minute pot-life and cure time of about 60 minutes depending on mass and temperature. Low viscosity ensures minimal bubble entrapment and long term shrinkage of cured resin is very low. Cured material is very strong can be machined, drilled, sanded, etc. Color can be added with SO-Strong® color tints.

General Information			
Filler / Reinforcement	Filler		
Features	Good Strength		
	High Density		
	Low Shrinkage		
	Low to No Odor		
	Low Viscosity		
	Machinable		
Appearance	Tan		
Processing Method	Casting		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.74	g/cm <sup>3</sup>	ASTM D1475
Specific Volume	0.574	cm <sup>3</sup> /g	ASTM D1475
Molding Shrinkage - Flow	0.25	%	ASTM D2566
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	82		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3380	MPa	ASTM D638
Tensile Strength (Break)	24.5	MPa	ASTM D638
Tensile Elongation (Break)	1.4	%	ASTM D638
Flexural Modulus	2170	MPa	ASTM D790
Flexural Strength	33.6	MPa	ASTM D790
Compressive Modulus	869	MPa	ASTM D695
Compressive Strength	54.2	MPa	ASTM D695
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	51.7	°C	ASTM D648
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components			
Part A	Mix Ratio by Weight: 1.0, Mix Ratio by Volume: 1.0		
Part B	Mix Ratio by Weight: 1.0, Mix Ratio by Volume: 1.0		

Pot Life	6.0	min	ASTM D2471
Thermoset Mix Viscosity	1140	cP	ASTM D2393
Demold Time	60	min	

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Recommended distributors for this material


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