

Task® 8

Polyurethane
Smooth-On, Inc

Message:

TASK® 8 is a heat resistant polyurethane resin system made specifically for prototyping / casting applications which require thermal resistance of up to 263°F /129°C.

TASK® 8 offers the convenience of a 1A:1B mix ratio and has a very low viscosity, so it is easy to mix and pour. Plastic cures quickly to a Shore 80D and exhibits good physical and performance properties. Heat curing this material is necessary to attain optimal heat resistance. See "Heat Curing" section for curing schedule details.

Applications include making machine housings, thermo-forming and general prototyping / casting.

General Information	
Features	High Heat Resistance
	Low Viscosity
Uses	Housings
	Modeling Material
	Prototyping
Appearance	Off-White
Processing Method	Casting
	Thermoforming

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.09	g/cm³	ASTM D1475
Specific Volume	0.918	cm³/g	ASTM D1475

120A:100B by Weight

Mixing Ratio	1A:1B by volume		
Molding Shrinkage - Flow	1.0	%	ASTM D2566

Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	80		ASTM D2240

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1700	MPa	ASTM D638
Tensile Strength (Break)	40.3	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	1870	MPa	ASTM D790
Flexural Strength	57.1	MPa	ASTM D790
Compressive Modulus	534	MPa	ASTM D695
Compressive Strength	60.4	MPa	ASTM D695

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed ¹	128	°C	
1.8 MPa, Unannealed ²	90.0	°C	
Thermoset	Nominal Value	Unit	Test Method
Pot Life (23°C)	2.5	min	ASTM D2471
Thermoset Mix Viscosity	100	cP	ASTM D2393
Demold Time ³ (23°C)	10 to 15	min	
NOTE			
1.	After Heat Curing		
2.	After 1 Week At 73°F/23°C		
3.	Cure Time		

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