

Zythane® 8085D

Thermoplastic Polyurethane Elastomer

Alliance Polymers & Services

Message:

Zythane 8085D is a 85D, rigid clear engineering thermoplastic polyurethane resin and has a high softening point. It exhibits excellent tensile and flexural strength & modulus (>2200 MPa), toughness, solvent resistance, abrasive resistance, good fatigue resistance, and maintenance of good physical properties under UV exposure. It is supplied uncolored in pellet form.

Typical Applications:

Zythane 8085D applications include among others dampening applications for sports shoes, ski tips, power tools handles, good overmolded adhesion to certain EP (ex: PC, ABS, PMMA), cell phone cases, plugs, terminations, ski boot shell, animal tags, railroad pads.

General Information			
Features	Solvent resistance		
	Good UV resistance		
	Good wear resistance		
	Fatigue resistance		
	Good toughness		
Uses	Power/other tools		
	Industrial application		
	Mobile phone		
	Sporting goods		
Appearance	Colorless		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	85		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Taber Abrasion Resistance	45.0	mg	ASTM D1044
Abrasion - DIN	50	mm ³	DIN 53516
Elastomers	Nominal Value	Unit	Test Method
Tensile Strength (Break)	71.0	MPa	ASTM D412
Tensile Elongation (Break)	59	%	ASTM D412
Compression Set			ASTM D395B
24°C, 22 hr	38	%	ASTM D395B
70°C, 72 hr	48	%	ASTM D395B
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-5.00	°C	DSC
Vicat Softening Temperature	245	°C	ASTM D1525

Flammability	Nominal Value	Test Method
Flame Rating		UL 94
1.00 mm	HB	UL 94
1.50 mm	HB	UL 94
3.00 mm	HB	UL 94

Injection	Nominal Value	Unit
Drying Temperature	100	°C
Drying Time	8.0	hr
Rear Temperature	210	°C
Middle Temperature	220	°C
Front Temperature	235	°C
Nozzle Temperature	235 - 245	°C
Processing (Melt) Temp	235 - 255	°C
Mold Temperature	80.0 - 100	°C
Back Pressure	0.600 - 1.40	MPa
Screw Speed	60 - 200	rpm
Clamp Tonnage	5.0 - 9.0	kN/cm ²

Injection instructions

Injection Speed: >.4 in/sec

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