

## Alliance Polymers Zythane™ 7085A Thermoplastic Polyurethane Elastomer

Category : Polymer , Thermoplastic , Elastomer, TPE , Polyurethane TPE

### Material Notes:

Zythane™ 7085A is a polycaprolactone-based TPU specifically formulated for injection molding applications .It exhibits excellent low compression set, abrasion resistance and toughness and has good hydrolytic stability, oil, fuel and solvent resistance. It is supplied uncolored in pellet form. Availability: North America Features: Fuel Resistant, Good Toughness, Oil Resistant, Hydrolytically Stable, Solvent Resistant, Good Abrasion Resistance Appearance: Colorless Forms: Pellets Processing Method: Injection Molding and Extrusion Information provided by Alliance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Alliance-Polymers-Zythane-7085A-Thermoplastic-Polyurethane-Elastomer.php](http://www.lookpolymers.com/polymer_Alliance-Polymers-Zythane-7085A-Thermoplastic-Polyurethane-Elastomer.php)

Physical Properties	Metric	English	Comments
Density	1.12 g/cc	0.0405 lb/in <sup>3</sup>	ASTM D792

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	85	85	ASTM D2240
Tensile Strength at Break	37.0 MPa	5370 psi	ASTM D412
Tensile Stress	6.00 MPa @Strain 100 %	870 psi @Strain 100 %	ASTM D412
	10.0 MPa @Strain 300 %	1450 psi @Strain 300 %	ASTM D412
Elongation at Break	550 %	550 %	ASTM D412
Tear Strength	110 kN/m	628 pli	Die C; ASTM D412
Taber Abrasion, mg/1000 Cycles	28	28	ASTM D1044
Abrasion	18	18	mm <sup>3</sup> ; DIN 53516
Compression Set	23 % @Temperature 22.8 °C, Time 79200 sec	23 % @Temperature 73.0 °F, Time 22.0 hour	ASTM D3995B
	39 % @Temperature 70.0 °C, Time 259000 sec	39 % @Temperature 158 °F, Time 72.0 hour	ASTM D3995B

Thermal Properties	Metric	English	Comments
Vicat Softening Point	105 °C	221 °F	ASTM D1525

Brittleness Temperature Thermal Properties	-38.0 °C Metric	-36.4 °F English	ASTM D746 Comments
Flammability, UL94	HB	HB	
	@Thickness 1.00 mm	@Thickness 0.0394 in	
	HB	HB	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	
	@Thickness 3.00 mm	@Thickness 0.118 in	

Processing Properties	Metric	English	Comments
Processing Temperature	200 °C	392 °F	Gate Temperature; Extrusion
	205 - 210 °C	401 - 410 °F	Injection
Rear Barrel Temperature	180 °C	356 °F	Injection
Middle Barrel Temperature	195 °C	383 °F	Injection
Front Barrel Temperature	200 °C	392 °F	Injection
Nozzle Temperature	200 - 215 °C	392 - 419 °F	Injection
Zone 1	180 °C	356 °F	Extrusion
Zone 2	195 °C	383 °F	Extrusion
Zone 3	200 °C	392 °F	Extrusion
Die Temperature	208 °C	406 °F	Extrusion
Mold Temperature	25.0 - 60.0 °C	77.0 - 140 °F	Injection
Injection Velocity	>= 10.0 mm/sec	>= 0.394 in/sec	Injection
Drying Temperature	85.0 °C	185 °F	Injection
	85.0 °C	185 °F	Extrusion
Dry Time	4.00 hour	4.00 hour	Injection
	4.00 hour	4.00 hour	Extrusion
Back Pressure	0.500 - 1.00 MPa	72.5 - 145 psi	Injection
Clamp Pressure	40.0 - 70.3 MPa	5800 - 10200 psi	Injection
Screw Speed	60 - 200 rpm	60 - 200 rpm	Injection

## **Contact Songhan Plastic Technology Co.,Ltd.**

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