# Zythane® 3045D

### Thermoplastic Polyurethane Elastomer (Polycaprolactone)

#### Alliance Polymers & Services

#### Message:

Zythane 3045D is a polycaprolactone--based TPU specifically formulated for injection molding applications. It exhibits excellent lowcompression set, abrasion resistance and toughness and has good hydrolytic stability, oil, fuel and solvent resistance. It is supplied uncolored in pellet form. Typical Applications:

Zythane 3045D application include hydraulic seals and other applications require good higher temp compression set.

General Information					
Features	Fuel Resistant				
	Good Abrasion Resistance				
	Good Toughness				
	Hydrolytically Stable				
	Low Compression Set				
	Oil Resistant				
	Solvent Resistant				
Uses	Seals				
Appearance	Colorless				
Forms	Pellets				
Processing Method	Injection Molding				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.20	g/cm <sup>3</sup>	ASTM D792		
Hardness	Nominal Value	Unit	Test Method		
Durometer Hardness			ASTM D2240		
Shore A	95				
Shore D	45				
Mechanical	Nominal Value	Unit	Test Method		
Taber Abrasion Resistance	48.0	mg	ASTM D1044		
Abrasion - DIN	44	mm³	DIN 53516		
Elastomers	Nominal Value	Unit	Test Method		
Tensile Stress			ASTM D412		
100% Strain	14.0	MPa			
300% Strain	31.0	MPa			
Tensile Strength (Break)	51.0	MPa	ASTM D412		
Tensile Elongation (Break)	450	%	ASTM D412		
Tear Strength <sup>1</sup>	142	kN/m	ASTM D624		
Compression Set			ASTM D395B		
24°C, 22 hr	12	%			
792°C, 72 hr	17	%			

Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-25.0	°C	DSC
Vicat Softening Temperature	140	°C	ASTM D1525
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
1.00 mm	НВ		
1.50 mm	НВ		
3.00 mm	НВ		
NOTE			
1.	Die C		

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#### Recommended distributors for this material

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