## Zythane® 7075AF

Thermoplastic Polyurethane Elastomer (Polyether)

Alliance Polymers & Services

## Message:

Zythane 7075AF is a polyether--based FR TPU specifically formulated for both injection molding and extrusion applications with ease of processing. It exhibits excellent flame retandance, abrasion resistance and toughness and has good hydrolytic stability, oil, fuel and solvent resistance. It is supplied uncolored in pellet form.

Typical Applications:

Zythane 7075AF applications include among others FDA applications, cable sheathing, spiral and pneumatic tubing, film, irrigation hoses, conveyor hoses, fire hoses, hydraulic hoses, cable jacketing, flat flex cables, automotive sensor cables.

General Information					
Features	Solvent resistance				
	Good wear resistance				
	Fuel resistance				
	Oil resistance				
	Good toughness				
	Hydrolysis stability				
	Flame retardancy				
Uses	Cable sheath				
	Pipe				
	Pipe fittings				
	Application in Automobile Field				
Agency Ratings	FDA not rated				
Appearance	Colorless				
Forms	Particle				
Processing Method	Extrusion				
	Injection molding				
Physical	Nominal Value	Unit	Test Method		
Specific Gravity	1.14	g/cm³	ASTM D792		
Hardness	Nominal Value	Unit	Test Method		
Durometer Hardness (Shore A)	75		ASTM D2240		
Mechanical	Nominal Value	Unit	Test Method		
Taber Abrasion Resistance	19.0	mg	ASTM D1044		
Abrasion - DIN	21	mm³	DIN 53516		
Elastomers	Nominal Value	Unit	Test Method		
Tensile Stress			ASTM D412		
100% strain	5.00	MPa	ASTM D412		
300% strain	12.0	MPa	ASTM D412		

Tensile Strength (Break)	42.0	МРа	ASTM D412
Tensile Elongation (Break)	700	%	ASTM D412
Tear Strength <sup>1</sup>	58.8	kN/m	ASTM D624
Compression Set			ASTM D395B
24°C, 22 hr	19	%	ASTM D395B
70°C, 72 hr	44	%	ASTM D395B
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-47.8	°C	DSC
Vicat Softening Temperature	92.2	°C	ASTM D1525
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
1.50 mm	V-2		UL 94
3.00 mm	V-2		UL 94
1.00 mm	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	85.0	°C	
Drying Time	4.0	hr	
Rear Temperature	170	°C	
Middle Temperature	185	°C	
Front Temperature	200	°C	
Nozzle Temperature	200 - 205	°C	
Processing (Melt) Temp	195 - 200	°C	
Mold Temperature	25.0 - 60.0	°C	
Back Pressure	0.500 - 1.00	MPa	
Screw Speed	60 - 200	rpm	
Clamp Tonnage	4.1 - 6.9	kN/cm²	
Injection instructions			
Injection Speed: >.4 in/sec			
Extrusion	Nominal Value	Unit	
Drying Temperature	85.0	°C	
Drying Time	4.0	hr	
Cylinder Zone 1 Temp.	170	°C	
Cylinder Zone 2 Temp.	185	°C	
Cylinder Zone 3 Temp.	200	°C	
Die Temperature	202	°C	
Extrusion instructions			
Gate Temperature: 200°C (392°F)			
NOTE			
1.	C mould		

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## Recommended distributors for this material

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