

Texin® 288

Thermoplastic Polyurethane Elastomer (Polyester)

Covestro - PUR

Message:

Texin 288 is an aromatic polyester-based thermoplastic polyurethane with a hardness of approximately 88A. It can be processed by injection molding. Extrusion processes are also possible for some applications.

General Information			
Features	Impact resistance, good		
	Good flexibility		
	Good wear resistance		
	Low temperature resistance		
	Fuel resistance		
	Oil resistance		
	Good toughness		
Uses	Wheels		
	Bushing		
	Gear		
	Industrial application		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage			
Flow: 2.54mm	0.80	%	ASTM D955
Transverse flow: 2.54mm	0.80	%	ASTM D955
Vertical flow direction: 2.54mm	0.80	%	ISO 2577
Flow direction: 2.54mm	0.80	%	ISO 2577
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240, ISO 868
Shaw A	88		ASTM D2240, ISO 868
Shaw D	38		ASTM D2240, ISO 868
Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus (23°C)	46.2	MPa	ASTM D790, ISO 178
Taber Abrasion Resistance			
1000 Cycles, 1000g, H-18 wheel	40.0	mg	ISO 4649
1000 Cycles, 1000g, H-18 wheel	40.0	mg	ASTM D1044

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412, ISO 37
100% strain	6.90	MPa	ASTM D412, ISO 37
300% strain	20.0	MPa	ASTM D412, ISO 37
Tensile Strength (Yield)	46.9	MPa	ASTM D412, ISO 37
Tensile Elongation (Break)	500	%	ASTM D412, ISO 37
Tear Strength			
-- ¹	105	kN/m	ASTM D624
--	110	kN/m	ISO 34-1
Compression Set			ISO 815
23°C, 22 hr	15	%	ASTM D395
23°C, 22 hr ²	12	%	ASTM D395B
70°C, 22 hr	52	%	ASTM D395
70°C, 22 hr ³	21	%	ASTM D395B
Bayshore Resilience	41	%	ASTM D2632
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	-45.0	°C	DMA
Vicat Softening Temperature	135	°C	ISO 306/A50, ASTM D1525 4
Injection	Nominal Value	Unit	
Drying Temperature - Desiccant Dryer	99.0 - 110	°C	
Drying Time - Desiccant Dryer	2.0	hr	
Suggested Max Moisture	< 0.030	%	
Suggested Max Regrind	20	%	
Rear Temperature	190 - 210	°C	
Middle Temperature	190 - 215	°C	
Front Temperature	200 - 220	°C	
Nozzle Temperature	205 - 225	°C	
Processing (Melt) Temp	205 - 215	°C	
Mold Temperature	15.0 - 40.0	°C	
Injection Pressure	41.4 - 103	MPa	
Injection Rate	Slow-Moderate		
Back Pressure	< 1.38	MPa	
Screw Speed	40 - 80	rpm	
Cushion	< 3.18	mm	
Injection instructions			
Hold Pressure: 60 to 80% of Injection Pressure			
NOTE			
1.	C mould		
2.	Post-cured 16 hr at 230°F		
3.	Post-cured 16 hr at 230°F		
4.	速率 A (50°C/h), 压力1 (10N)		

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