apilon 52® ETC 27

Thermoplastic Polyurethane Elastomer (Polyether)

API SpA

Message:

Hardness

apilon 52® ETC 27 is a thermoplastic polyurethane elastomer (polyether)(TPU-polyether) product. It can be processed by extrusion or injection molding and is available in Europe. apilon 52® The application areas of ETC 27 include engineering/industrial accessories, electrical/electronic applications, electrical appliances, tools and home applications. Features include: chemical resistance environmental protection/green low temperature resistance Wear-resistant

General Information										
Features	Antimicrobial Recyclable materials									
	Good wear resistance									
	Low temperature resistance Good chemical resistance Hydrolysis resistance									
					Oil resistance					
	Uses	Handle								
Wheels										
Conveyor belt repair Electrical/Electronic Applications Electrical appliances										
				Washer Power/other tools Pipe fittings Household goods						
									Sporting goods	
Coating application										
Footwear										
Forms		Particle	Particle							
Processing Method		Extrusion								
		Injection molding								
Physical	Nominal Value	Unit	Test Method							
Specific Gravity	1.12	g/cm³	ASTM D792							

Unit

Test Method

Nominal Value

Durometer Hardbacc			ASTM D2240
Durometer Hardness	01		
Shaw A, 15 seconds	81		ASTM D2240
Shaw D, 3 seconds	33		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
	38.0	MPa	ASTM D638
100% strain	5.00	MPa	ASTM D638
300% strain	8.00	MPa	ASTM D638
Tensile Elongation (Break)	640	%	ASTM D638
Abrasion Resistance	50.0	mm³	DIN 53516
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ¹	85.0	kN/m	ASTM D624
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (-20°C)	No Break		ASTM D256
Injection	Nominal Value	Unit	
Drying Temperature	80.0 - 110	°C	
Drying Time	2.0	hr	
Suggested Max Moisture	0.070	%	
Rear Temperature	180 - 190	°C	
Middle Temperature	185 - 200	°C	
Front Temperature	190 - 215	°C	
Nozzle Temperature	200 - 230	°C	
Mold Temperature	30.0 - 60.0	°C	
Injection Pressure	50.0 - 100	MPa	
Injection Rate	Slow-Moderate		
Injection instructions			
Back Pressure: Medium to LowLockin	g Pressure: High		
Extrusion	Nominal Value	Unit	
Drying Temperature	80.0 - 110	°C	
Drying Time	2.0	hr	
Suggested Max Moisture	0.070	%	
Cylinder Zone 1 Temp.	160 - 185	°C	
Cylinder Zone 2 Temp.	170 - 200	°C	
Cylinder Zone 3 Temp.	175 - 210	°C	
Cylinder Zone 4 Temp.	180 - 220	°C	
Die Temperature	170 - 210	°C	
Extrusion instructions			
L/D Ratio: 20:1 to 30:1Compression R	atio: 1:2.5 to 1:3		
NOTE			
1.	Without Notch		

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