

apilon 52® DE 50

Thermoplastic Polyurethane Elastomer (Polyester)

API SpA

Message:

apilon 52® DE 50 is a thermoplastic polyurethane elastomer (polyester)(TPU-polyester) product. It can be processed by extrusion or coating and is available in Europe. apilon 52® The application areas of DE 50 include engineering/industrial accessories, food contact applications, electrical/electronic applications, electrical appliances and tools.

- Features include:
- ROHS certification
 - Wear-resistant
 - environmental protection/green
 - Good UV resistance
 - low temperature resistance

General Information	
Features	Good UV resistance
	Recyclable materials
	Good wear resistance
	Low temperature resistance
	Good wear 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
Agency Ratings	Footwear
Agency Ratings	FDA 21 CFR 175.105
	FDA 21 CFR 177.2600
RoHS Compliance	RoHS compliance
Forms	Particle
Processing Method	Extrusion
	Coating

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.20 - 1.22	g/cm ³	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shaw A, 15 seconds	94		ASTM D2240
Shaw D, 3 seconds	50		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
--	48.0	MPa	ASTM D638
100% strain	10.0 - 11.0	MPa	ASTM D638
300% strain	22.0 - 23.0	MPa	ASTM D638
Tensile Elongation (Break)	500 - 530	%	ASTM D638
Flexural Modulus	70.0	MPa	ASTM D790
Abrasion Resistance		mm ³	DIN 53516
Elastomers	Nominal Value	Unit	Test Method
Tear Strength ¹	135 - 137	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 LowLocking 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 Ratio: 1:2.5 to 1:3

NOTE

1. Without Notch

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