

# apilon 52® TL 45 NS

Thermoplastic Polyurethane Elastomer (Polyether)

API SpA

Message:

apilon 52®TL 45 NS is a thermoplastic polyurethane elastomer (polyether)(TPU-polyether) product. It can be processed by injection molding and is available in Europe. apilon 52®The application areas of TL 45 NS include engineering/industrial accessories, electrical/electronic applications, electrical appliances, tools and home applications.

Features include:  
environmental protection/green  
low temperature resistance

General Information			
Features	Antimicrobial		
	Recyclable materials		
	Low temperature resistance		
	Hydrolysis 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		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.14	g/cm³	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness			ASTM D2240
Shaw A, 15 seconds	90		ASTM D2240
Shaw D, 3 seconds	43		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
--	40.0	MPa	ASTM D638
100% strain	9.00	MPa	ASTM D638
300% strain	23.0	MPa	ASTM D638

Tensile Elongation (Break)	750	%	ASTM D638
Flexural Modulus (23°C)	80.0	MPa	ASTM D790
Abrasion Resistance	50.0	mm <sup>3</sup>	DIN 53516
Elastomers	Nominal Value	Unit	Test Method
Tear Strength <sup>1</sup>	108	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 - 100	°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 - 60	°C	
Injection Pressure	50.0 - 100	MPa	
Injection Rate	Slow-Moderate		
NOTE			
1.	With Notch		

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#### Recommended distributors for this material

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