

# apigo® CA 450

Thermoplastic Polyolefin Elastomer

API SpA

## Message:

apigo® CA 450 is a polyolefin thermoplastic elastomer (TPO (POE)) product. It can be processed by extrusion or injection molding and is available in Europe. apigo® CA 450 applications include consumer goods, electrical appliances, home applications, construction applications and the automotive industry.

- Features include:
- chemical resistance
  - environmental protection/green
  - Good processability
  - Rapid Prototyping Cycle
  - low temperature resistance

General Information			
Features	Stress whitening		
	Recyclable materials		
	Workability, good		
	Fast molding cycle		
	Low temperature resistance		
	Good chemical resistance		
	alkali resistance		
	acid resistance		
	Definition, high		
Uses	Electrical appliances		
	Household goods		
	Architectural application field		
	Application in Automobile Field		
	Sporting goods		
	Toys		
	Footwear		
Appearance	Available colors		
	Clear/transparent		
Forms	Particle		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.900	g/cm <sup>3</sup>	ASTM D792

Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	12	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 3 sec)	57		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
--	18.0	MPa	ASTM D638
100% strain	14.0	MPa	ASTM D638
300% strain	13.6	MPa	ASTM D638
Tensile Elongation (Break)	690	%	ASTM D638
Flexural Modulus (23°C)	450	MPa	ASTM D790
Elastomers	Nominal Value	Unit	Test Method
Tear Strength <sup>1</sup>	150	kN/m	ASTM D624
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-20°C	80	J/m	ASTM D256
23°C	No Break		ASTM D256
Injection	Nominal Value	Unit	
Rear Temperature	150 - 170	°C	
Middle Temperature	160 - 180	°C	
Front Temperature	170 - 190	°C	
Nozzle Temperature	180 - 200	°C	
Mold Temperature	20.0 - 60.0	°C	
Injection Rate	Slow-Moderate		
Injection instructions			
Injection Pressure: HighBack Pressure: MediumLocking Pressure: High			
Extrusion	Nominal Value	Unit	
Cylinder Zone 1 Temp.	150 - 180	°C	
Cylinder Zone 2 Temp.	160 - 190	°C	
Cylinder Zone 3 Temp.	170 - 190	°C	
Cylinder Zone 4 Temp.	180 - 190	°C	
Extrusion instructions			
L/D Ratio: >20:1Compression Ratio: 1:2.5 to 1:3			
NOTE			
1.	Without Notch		

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