

Elastron

P.V101.A50.N

TECHNICAL DATASHEET

PRODUCT DESCRIPTION

A soft , colorable thermoplastic vulcanizate, TPV (EPDM/PP) in the thermoplastic elastomer family designed for use in medical applications. This grade is capable of sterilization with steam at 134°C, Gamma (25KGy/50KGy) and EtO.

GENERAL PROPERTIES		
Color	Natural	
Certifications	RoHS	
Processing Method	Injection	Extrusion
Available Standards	ASTM	
USP Class VI Compliance	USP Class VI Compliance	

Physical Properties					
Property	Unit	Standard	Value		
Density	g/cm³	ASTM D 792	0.90		
Durometer Hardness, 3 sec	Shore A	ASTM D 2240	50.00		
Tensile Strength at Break	MPa	ASTM D412, Method A	4.50		
Mod.of Elasticity %100	MPa	ASTM D412, Method A	1.50		
Mod.of Elasticity %300	MPa	ASTM D412, Method A	2.80		
Elongation at break	%	ASTM D412, Method A	600.00		
Compression Set	% at 23°C, 22 h	ASTM D 395, Type 2, Method B	14.00		
Compression Set	% at 70°C, 22 h	ASTM D 395, Type 2, Method B	32.00		
Compression Set	% at 100°C, 22 h	ASTM D 395, Type 2, Method B	53.00		
Tear Resistance	N/mm	ASTM D624	24.00		
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ENGI-NEERING LIFE



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Ageing Tests					
Property	Unit	Standard	Value		
Ozone Resistance	Stressed	ASTM D 1149	No cracks		
	Во	ndable to			
	PI	E-PP-EVA			
Processing					
Injection	Unit	Value			
Drying temperatures	°C	90			
Drying time	hours	2			
Rear Zone temp.	°C	155- 175	5		
Middle Zone temp.	°C	165- 185	5		
Front Zone temp.	0°	170- 190)		
Nozzle Temperature	0°	180- 210)		
Injection Speed	-	Moderate	e		
Injection Time	sec.	2-4			
Injection Pressure	bar	10- 40	10- 40		
Hold Pressure	bar	5- 20	5- 20		
Back Pressure	bar	5- 40	5- 40		
Screw Speed	rpm	50- 200	50- 200		
Mold Temperature	°C	25- 50			
Screw Comp. ratio	-	1.5:1- 2.0:1			
Screw L/D ratio	-	18-24			
Residence time	-	1-2 shot			
Cushion size	mm	8	8		
Suggested Max Regrind	%	20			
Extrusion	Unit	Value			
Drying temperatures	°C	90			
Drying time	hours	2			
Screw Comp. Ratio	-	1.5:1- 2.0:1			
Screw L/D	-	18- 30			
Feed Zone temp.	°C	155- 165	155- 165		
Rear Zone temp.	°C	160- 180	160- 180		
Center Zone temp.	°C	165- 185	165- 185		
Front Zone temp.	°C	170- 190	170- 190		
Head temp.	°C	180- 210	180- 210		
Die temp.	°C	185- 215	185- 215		
Suggested Max Regrind	%	20			
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Across Flow

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Additional Information					
Elastron products are not compatible with PVC and Acetal. Regrinding level up to %20 is recommended with minimum property loss.					
Shrinkage	Unit	Standard	Value		
Flow	%	ASTM D955	3.00		

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ISO 9001: 2015 & IATF16949: 2016 & ISO 14001: 2015 REGISTERED QUALITY SYSTEMS



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