Elastron

P.V101.A70.B

PRODUCT DESCRIPTION

A soft , black 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	Black	
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	0.91
Durometer Hardness, 3 sec	Shore A	ASTM D 2240	70.00
Tensile Strength at Break	MPa	ASTM D412, Method A	5.50
Mod.of Elasticity %100	MPa	ASTM D412, Method A	2.80
Mod.of Elasticity %300	MPa	ASTM D412, Method A	4.70
Elongation at break	%	ASTM D412, Method A	450.00
Compression Set	% at 23°C, 22 h	ASTM D 395, Type 2, Method B	19.00
Compression Set	% at 70°C, 22 h	ASTM D 395, Type 2, Method B	35.00
Compression Set	% at 100°C, 22 h	ASTM D 395, Type 2, Method B	46.00
Tear Resistance	N/mm	ASTM D624	34.00

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Ageing Tests			
Property	**Unit**	**Standard**	**Value**
Ozone Resistance	Stressed	ASTM D 1149	No cracks
Bondable to			
PE-PP-EVA			
Processing			
Injection	**Unit**	**Value**	
Drying temperatures	°C	90	
Drying time	hours	2	
Rear Zone temp.	°C	155- 175	
Middle Zone temp.	°C	165- 185	
Front Zone temp.	°C	170- 190	
Nozzle Temperature	°C	180- 210	
Injection Speed	-	Moderate	
Injection Time	sec.	2- 4	
Injection Pressure	bar	10- 40	
Hold Pressure	bar	5- 20	
Back Pressure	bar	5- 40	
Screw Speed	rpm	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	
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	
Rear Zone temp.	°C	160- 180	
Center Zone temp.	°C	165- 185	
Front Zone temp.	°C	170- 190	
Head temp.	°C	180- 210	
Die temp.	°C	185- 215	
Suggested Max Regrind	%	20	

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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	2.00
Across Flow	%	ASTM D955	1.25

Notes			

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