

Elastron

P.V101.A50.B

TECHNICAL DATASHEET

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/cm ³	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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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	3.00
Across Flow	%	ASTM D955	1.16

Notes

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

