

**PRODUCT DESCRIPTION**

A soft , black thermoplastic vulcanizate, TPV (EPDM/PP) in the thermoplastic elastomer family designed for use in medical applications

**GENERAL PROPERTIES**

<b>Material Status</b>	Active
<b>Availability</b>	Europe North America Asia- Pasific Africa & Middle East
<b>Features</b>	Ozone Resistance Adhesion to Polyolefins Recyclable Compliant with RoHS Directive 2011/65/EU Compliant with USP Class VI Requirements
<b>Certification</b>	RoHS
<b>Appearance</b>	Black
<b>Form</b>	Pellets
<b>Processing Method</b>	Injection, Extrusion

**Physical Properties**

Property	Typical Value (English)	Typical Value (SI)	Test Method
<b>Density</b>	0.90 g/cm <sup>3</sup>	0,90 g/cm <sup>3</sup>	ASTM D 792
<b>Durometer Hardness, 3 sec (Shore A)</b>	50.00	50,00	ASTM D 2240
<b>Tensile Strength at Break</b>	653 Psi	4,50 MPa	ASTM D412, Method A
<b>Mod.of Elasticity %100</b>	218 Psi	1,50 MPa	ASTM D412, Method A
<b>Mod.of Elasticity %300</b>	406 Psi	2,80 MPa	ASTM D412, Method A
<b>Elongation at break</b>	600.00 %	600,00 %	ASTM D412, Method A
<b>Compression Set (at 73 °F, 22 h)</b>	14.00 %	14,00 %	ASTM D 395, Type 2, Method B
<b>Compression Set (at 158 °F, 22 h)</b>	32.00 %	32,00 %	ASTM D 395, Type 2, Method B
<b>Compression Set (at 212 °F, 22 h)</b>	53.00 %	53,00 %	ASTM D 395, Type 2, Method B
<b>Tear Resistance</b>	137.04 lbf/in	24,00 N/mm	ASTM D624

**Shrinkage**

Property	Typical Value (English)	Typical Value (SI)	Test Method
<b>Flow</b>	3.00%	3.00%	ASTM D955
<b>Across Flow</b>	1.16%	1.16%	ASTM D955

### Ageing Tests

Additional Information	Typical Value (English)	Typical Value (SI)	Test Method
Ozone Resistance-Stressed	No cracks	No cracks	ASTM D 1149

### Bondable to

PE-PP-EVA

### Additional Information

Elastron products are not compatible with PVC and Acetal.  
Regrinding level up to %20 is recommended with minimum property loss.

### Processing

Injection Molding	Typical Value (English)		Typical Value (SI)	
Drying temperatures	194	°F	90	°C
Drying time	2	hours	2	hours
Rear Zone temp.	311-347	°F	155- 175	°C
Middle Zone temp.	329-365	°F	165- 185	°C
Front Zone temp.	338-374	°F	170- 190	°C
Nozzle Temperature	356-410	°F	180- 210	°C
Injection Speed	Moderate	-	Moderate	-
Injection Time	2- 4	sec.	2- 4	sec.
Injection Pressure	10- 40	bar	10- 40	bar
Hold Pressure	5- 20	bar	5- 20	bar
Back Pressure	5- 40	bar	5- 40	bar
Screw Speed	50- 200	rpm	50- 200	rpm
Mold Temperature	77-122	°F	25- 50	°C
Screw Comp. ratio	1.5:1- 2.0:1	-	1.5:1- 2.0:1	-
Screw L/D ratio	18- 24	-	18- 24	-
Residence time	1-2 shot	-	1-2 shot	-
Cushion size	0.3120	inc	8	mm
Suggested Max Regrind	20	%	20	%

Extrusion Molding	Typical Value (English)		Typical Value (SI)	
Drying temperatures	194	°F	90	°C
Drying time	2	hours	2	hours
Screw Comp. Ratio	1.5:1- 2.0:1	-	1.5:1- 2.0:1	-
Screw L/D	18- 30	-	18- 30	-
Feed Zone temp.	311-329	°F	155- 165	°C
Rear Zone temp.	320-356	°F	160- 180	°C
Center Zone temp.	329-365	°F	165- 185	°C
Front Zone temp.	338-374	°F	170- 190	°C
Head temp.	356-410	°F	180- 210	°C
Die temp.	365-419	°F	185- 215	°C
Suggested Max Regrind	20	%	20	%

# Notes

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

