

PRODUCT DESCRIPTION

A soft , black thermoplastic vulcanizate, TPV (EPDM/PP) in the thermoplastic elastomer family designed for drinking water applications with a metal deactivator for applications in contact with copper.

GENERAL PROPERTIES

Material Status	Active
Availability	Europe North America Asia- Pasific Africa & Middle East
Features	NSF 61 Listed Ozone Resistance Adhesion to Polyolefins Recyclable Compliant with RoHS Directive 2011/65/EU
Certification	RoHS
Appearance	Black
Form	Pellets
Processing Method	Injection, Extrusion

Physical Properties

Property	Typical Value (English)	Typical Value (SI)	Test Method
Density	0.97 g/cm ³	0,97 g/cm ³	ASTM D 792
Durometer Hardness, 3 sec (Shore A)	55.00	55,00	ASTM D 2240
Tensile Strength at Break	653 Psi	4,50 MPa	ASTM D412, Method A
Mod.of Elasticity %100	218 Psi	1,50 MPa	ASTM D412, Method A
Mod.of Elasticity %300	377 Psi	2,60 MPa	ASTM D412, Method A
Elongation at break	550.00 %	550,00 %	ASTM D412, Method A
Compression Set (at 73 °F, 22 h)	19.00 %	19,00 %	ASTM D 395, Type 2, Method B
Compression Set (at 158 °F, 22 h)	27.00 %	27,00 %	ASTM D 395, Type 2, Method B
Compression Set (at 212 °F, 22 h)	35.00 %	35,00 %	ASTM D 395, Type 2, Method B
Tear Resistance	119.91 lbf/in	21,00 N/mm	ASTM D624

Shrinkage

Property	Typical Value (English)	Typical Value (SI)	Test Method
Flow			ASTM D955
Across Flow			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.

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	High	-	High	-
Injection Time	1- 3	sec.	1- 3	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	2.0:1- 4.0:1	-	2.0:1- 4.0:1	-
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	2.0:1- 4.0:1	-	2.0:1- 4.0:1	-
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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