V206.D51.B

PRODUCT DESCRIPTION

A hard , black thermoplastic vulcanizate, TPV (EPDM/PP) in the thermoplastic elastomer (TPE) family designed for low coefficient of friction requirements

GENERAL PROPERTIES

Material Status	Active
Availability	Europe North America Asia- Pasific Africa & Middle East
Features	Low Coefficient of Friction Properties 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	0.90 g/cm³	0,90 g/cm³	ASTM D 792
Durometer Hardness, 3 sec (Shore D)	51.00	51,00	ASTM D 2240
Tensile Strength at Break	2901 Psi	20,00 MPa	ASTM D412, Method A
Mod.of Elasticity %100	1450 Psi	10,00 MPa	ASTM D412, Method A
Mod.of Elasticity %300	1740 Psi	12,00 MPa	ASTM D412, Method A
Elongation at break	600.00 %	600,00 %	ASTM D412, Method A
Compression Set (at 73 °F, 22 h)	46.00 %	46,00 %	ASTM D 395, Type 2, Method B
Compression Set (at 158 °F, 22 h)	57.00 %	57,00 %	ASTM D 395, Type 2, Method B
Compression Set (at 212 °F, 22 h)	69.00 %	69,00 %	ASTM D 395, Type 2, Method B
Tear Resistance	399.71 lbf/in	70,00 N/mm	ASTM D624

Shrinkage

Property	Typical Value (English)	Typical Value (SI)	Test Method
Flow	1.70%	1.70%	ASTM D955
Across Flow	2.00%	2.00%	ASTM D955

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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	%

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Notes

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