V100.A80.B

PRODUCT DESCRIPTION

A soft , black thermoplastic vulcanizate, TPV (EPDM/PP) in the thermoplastic elastomer (TPE) family designed for injection applications.

GENERAL PROPERTIES

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

Physical Properties

Property	Typical Value (US)	Typical Value (SI)	Test Method
Density	0.96 g/cm³	0,96 g/cm³	ASTM D 792
Hardness, 3 sec (Shore A)	80.00	80,00	ASTM D 2240
Tensile Strength at Break	1015 Psi	7,00 MPa	ASTM D412, Method A
Mod.of Elasticity %100	421 Psi	2,90 MPa	ASTM D412, Method A
Mod.of Elasticity %300	624 Psi	4,30 MPa	ASTM D412, Method A
Elongation at Break	550.00 %	550,00 %	ASTM D412, Method A
Compression Set (at 73 °F, 22 h)	26.00 %	26,00 %	ASTM D 395, Type 2, Method B
Compression Set (at 158 °F, 22 h)	46.00 %	46,00 %	ASTM D 395, Type 2, Method B
Compression Set (at 212 °F, 22 h)	62.00 %	62,00 %	ASTM D 395, Type 2, Method B
Tear Resistance	234.11 lbf/in	41,00 N/mm	ASTM D624

Shrinkage

Property	Typical Value (US)	Typical Value (SI)	Test Method
Flow	1.66%	1.66%	ASTM D955
Across Flow	1.45%	1.45%	ASTM D955

Flammability

Property	Typical Value (US)	Typical Value (SI)	Test Method
Flammability Rating	HB	HB	UL 94

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Ageing Tests

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

Bondable to

PP

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 (US)		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	%

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Notes

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