V251.D40.B

PRODUCT DESCRIPTION

A hard , black thermoplastic vulcanizate, TPV (EPDM/PP) in the thermoplastic elastomer (TPE) family which offers higher temperature resistance and very good compression set with very good UV resistance. This product is specially designed for weatherseal 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,Extrusion

Automotive Specifications

GM/GMW 15812P (TYPE 9E)

Physical Properties

Property	Typical Value (English)	Typical Value (SI)	Test Method
Density	0.95 g/cm³	0,95 g/cm³	ASTM D 792
Durometer Hardness, 3 sec (Shore D)	40.00	40,00	ASTM D 2240
Tensile Strength at Break	2756 Psi	19,00 MPa	ASTM D412, Method A
Mod.of Elasticity %100	1189 Psi	8,20 MPa	ASTM D412, Method A
Mod.of Elasticity %300	1407 Psi	9,70 MPa	ASTM D412, Method A
Elongation at break	600.00 %	600,00 %	ASTM D412, Method A
Compression Set (at 73 °F, 22 h)	40.00 %	40,00 %	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)	66.00 %	66,00 %	ASTM D 395, Type 2, Method B
Tear Resistance	536.75 lbf/in	94,00 N/mm	ASTM D624

Shrinkage

Property	Typical Value (English)	Typical Value (SI)	Test Method
Flow	2.05%	2.05%	ASTM D955
Across Flow	1.05%	1.05%	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	%

Notes

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