

PRODUCT DESCRIPTION

A soft , black copper stabilised halogen free flame retardant (HFFR) thermoplastic vulcanizate, TPV (EPDM/PP) with superior UV – Ozone resistance

GENERAL PROPERTIES

Material Status	Active
Availability	Europe North America Asia- Pasific Africa & Middle East
Features	Halogen Free UL 94 V-0 Flammability Rating UL File No:QMFZ2.E336670 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	1.12 g/cm³	1,12 g/cm³	ASTM D 792
Durometer Hardness, 3 sec (Shore A)	70.00	70,00	ASTM D 2240
Tensile Strength at Break	653 Psi	4,50 MPa	ASTM D412, Method A
Mod.of Elasticity %100	348 Psi	2,40 MPa	ASTM D412, Method A
Mod.of Elasticity %300	479 Psi	3,30 MPa	ASTM D412, Method A
Elongation at break	500.00 %	500,00 %	ASTM D412, Method A
Compression Set (at 73 °F, 22 h)	21.00 %	21,00 %	ASTM D 395, Type 2, Method B
Compression Set (at 158 °F, 22 h)	43.00 %	43,00 %	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	165.59 lbf/in	29,00 N/mm	ASTM D624

Shrinkage

Property	Typical Value (English)	Typical Value (SI)	Test Method
Flow	0.95%	0.95%	ASTM D955
Across Flow	1.41%	1.41%	ASTM D955

Electrical Properties

Property	Typical Value (English)	Typical Value (SI)	Test Method
Dielectric Strength, KV/mm	13.60 KV/mm	13,60 KV/mm	ASTM D149
Dielectric Constant	2.99	2,99	ASTM D150
Volume resistivity	1.45E+15 Ω.in	3.71E+15 Ω.cm	ASTM D257

Flammability

Property	Typical Value (English)	Typical Value (SI)	Test Method
Flammability Rating	V0	V0	UL 94

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	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- 3.0:1	-	1.5:1- 3.0:1	-
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- 3.0:1	-	1.5:1- 3.0:1	-
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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