

Viprene™ G50D-32U-NAT

Alliance Polymers & Services - Thermoplastic Vulcanizate

General Information

Product Description

Viprene™ G50D-32U-NAT is a UV and Heat Stabilized TPV (thermoplastic vulcanizate elastomer). This material can be easily processed by extrusion or injection molding. It exhibits easy flowing characteristics.

General

Additive	• Heat Stabilizer	• UV Stabilizer	
Features	• Good Flow	• Heat Stabilized	• UV Resistant
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.970	g/cm ³	ISO 2781
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	232	psi	ISO 37
Tensile Stress (300% Strain)	392	psi	ISO 37
Tensile Stress (Break)	783	psi	ISO 37
Tensile Elongation (Break)	550	%	ISO 37
Tear Strength	160	lbf/in	ISO 34-1
Compression Set (158°F, 22 hr)	34	%	ASTM D395B
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D)	50		ISO 868
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	-76.0	°F	ASTM D746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.04 in		HB	
0.06 in		HB	
0.12 in		HB	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	3.0	hr
Rear Temperature	383	°F
Middle Temperature	392	°F
Front Temperature	401	°F
Nozzle Temperature	410 to 464	°F
Processing (Melt) Temp	419 to 464	°F
Mold Temperature	50 to 122	°F
Back Pressure	43.5 to 102	psi
Screw Speed	100 to 200	rpm
Clamp Tonnage	2.9 to 5.1	tons/in ²

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Injection Notes

Injection Speed: 50 mm/sec or more

Extrusion

	Nominal Value	Unit
Drying Temperature	176	°F
Drying Time	3.0	hr
Cylinder Zone 1 Temp.	383	°F
Cylinder Zone 2 Temp.	401	°F
Cylinder Zone 3 Temp.	410	°F
Die Temperature	419	°F

Extrusion Notes

Gate Temperature: 210°C (410°F)

Die Pressure: 5 to 20 MPa (725 to 2900 psi)