

Viprene™ G45D-32U-BLK

Alliance Polymers & Services - Thermoplastic Vulcanizate

General Information

Product Description

Viprene™ G45D-32U-BLK 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	• Black		
Forms	• Pellets		
Processing Method	• Extrusion	• Injection Molding	

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.940	g/cm ³	ISO 2781

Elastomers	Nominal Value	Unit	Test Method
Tensile Stress (100% Strain)	1320	psi	ISO 37
Tensile Stress (300% Strain)	1600	psi	ISO 37
Tensile Stress (Break)	2130	psi	ISO 37
Tensile Elongation (Break)	500	%	ISO 37
Tear Strength	491	lbf/in	ISO 34-1
Compression Set (158°F, 22 hr)	55	%	ASTM D395B

Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore A	95		
Shore D	45		

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	374	°F
Middle Temperature	383	°F
Front Temperature	392	°F
Nozzle Temperature	392 to 446	°F
Processing (Melt) Temp	410 to 464	°F
Mold Temperature	50 to 122	°F
Back Pressure	43.5 to 102	psi

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Injection	Nominal Value	Unit
Screw Speed	100 to 200	rpm
Clamp Tonnage	2.9 to 5.1	tons/in ²

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.	374	°F
Cylinder Zone 2 Temp.	392	°F
Cylinder Zone 3 Temp.	401	°F
Die Temperature	419	°F

Extrusion Notes

Gate Temperature: 210°C (410°F)

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