



OnFlex™-V 2050D-E0280

Thermoplastic Vulcanizate

Key Characteristics

Product Description

OnFlex™-V provides the performance of traditional vulcanised rubber, but with the processability of a thermoplastic. OnFlex™-V 2000 series thermoplastic elastomer compounds are based on a polyolefin phase with a cross-linked EPDM phase dispersed within it. This range of compounds are specially formulated for extrusion processes, providing a good surface quality and throughput. In addition to this, OnFlex™-V 2000 series thermoplastic elastomer compounds provide excellent colourability (low yellowness), good mechanical properties, excellent flexibility over a wide temperature range, a wide hardness range, and good hydrocarbon and heat ageing resistance.

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • North America	• South America
Features	• General Purpose		
Uses	• Automotive Applications • Construction Applications	• General Purpose • Industrial Applications	• Wire & Cable Applications
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		
Processing Method	• Extrusion		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	0.940 g/cm ³	0.940 g/cm ³	ISO 1183
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress (100% Strain)	1310 psi	9.00 MPa	ISO 37
Tensile Stress (300% Strain)	1610 psi	11.1 MPa	ISO 37
Tensile Stress (Break)	3550 psi	24.5 MPa	ISO 37
Tensile Elongation (Break)	550 %	550 %	ISO 37
Tear Strength	540 lbf/in	95 kN/m	ISO 34-1
Compression Set			ISO 815
73°F (23°C), 72.0 hr	45 %	45 %	
158°F (70°C), 22.0 hr	65 %	65 %	
212°F (100°C), 22.0 hr	85 %	85 %	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Shore Hardness (Shore D)	50	50	ISO 868
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating - UL (0.0591 in (1.50 mm))	HB	HB	UL 94
Oxygen Index	19 %	19 %	ISO 4589-2

Additional Properties

Tensile properties are measured on an extruded profile.

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 °F	80.0 °C
Drying Time	3.0 hr	3.0 hr
Processing (Melt) Temp	356 to 410 °F	180 to 210 °C
Mold Temperature	86.0 to 140 °F	30.0 to 60.0 °C
Injection Rate	Fast	Fast

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Notes

¹ Typical values are not to be construed as specifications.

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