



OnFlex™-V 2180A-E0271

Thermoplastic Vulcanizate

Key Characteristics

Product Description

OnFlex™-V provides the performance of traditional vulcanised rubber, but with the processability of a thermoplastic. OnFlex™-V 2100 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 and are highly UV stabilized for excellent weatherability. In addition to this, OnFlex™-V 2100 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	• Good UV Resistance		
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	0.960 g/cm ³	0.960 g/cm ³	ISO 1183
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress (100% Strain)	479 psi	3.30 MPa	ISO 37
Tensile Stress (300% Strain)	870 psi	6.00 MPa	ISO 37
Tensile Stress (Break)	1960 psi	13.5 MPa	ISO 37
Tensile Elongation (Break)	650 %	650 %	ISO 37
Tear Strength	230 lbf/in	41 kN/m	ISO 34-1
Compression Set			ISO 815
73°F (23°C), 72.0 hr	40 %	40 %	
158°F (70°C), 22.0 hr	48 %	48 %	
212°F (100°C), 22.0 hr	48 %	48 %	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Shore Hardness (Shore A)	80	80	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

Copyright © 2008 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

Notes

¹ Typical values are not to be construed as specifications.

CONTACT INFORMATION**Americas**

Argentina - Buenos Aires
+0054 11 4200 5917

Brasil - Campinas
+55 19 3206 0561

Mexico - Toluca
+52 722 2790200

United States - Avon Lake
+1 440 930 1000

United States - McHenry
+1 (815) 385-8500

Asia

China - Shenzhen
+86 (0) 755 2969 2888

China - Suzhou
+86 (0) 512 6823 24 38

China - Suzhou
+86 512 6265 2600

Hong Kong -
+852 2690 5332

India - Mumbai
+91 9820 194 220

Taiwan - Yonghe City,
+886 9396 99740

Europe

Germany - Gaggenau
+49 (0) 7225 6802 0

Netherlands - The Netherlands
+31 (0) 165 331 293

Spain - Barbastro (Huesca)
+34 (0) 9 7431 0314

Turkey - Cekmece-Istanbul-Türkiye
+90 (0) 212 549 2256



Beyond Polymers.

Better Business Solutions. SM

www.polyone.com

PolyOne Americas

33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000
+1 866 POLYONE

PolyOne Asia

No. 88 Guoshoujing Road
Z.J Hi-tech Park, Pudong
Shanghai, 201203, China
+86 (0) 21 5080 1188

PolyOne Europe

2 Rue Melville Wilson
5330 Assesse, Belgium
+32 (0) 83 660 211