



OnFlex™ V 3050D-S0097

Thermoplastic Elastomer

Key Characteristics

Product Description

OnFlex™-V provides the performance of traditional vulcanised rubber, but with the processability of a thermoplastic. OnFlex™-V 3000 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 to provide the melt strength and processability required for blow-moulding processes. In addition to this, OnFlex™-V 3000 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, heat ageing and weather resistance.

General

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

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	0.920 g/cm ³	0.920 g/cm ³	ISO 1183
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress (100% Strain)	1230 psi	8.50 MPa	ISO 37
Tensile Stress (300% Strain)	1450 psi	10.0 MPa	ISO 37
Tensile Stress (Break)	2350 psi	16.2 MPa	ISO 37
Tensile Elongation (Break)	600 %	600 %	ISO 37
Compression Set			ISO 815
73°F (23°C), 72 hr	45 %	45 %	
158°F (70°C), 22 hr	70 %	70 %	
212°F (100°C), 22 hr	75 %	75 %	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Shore Hardness (Shore D)	50	50	ISO 868
Additional Information	Typical Value (English)	Typical Value (SI)	
Generic Material Type	Thermoplastic Vulcanizate (TPV)	Thermoplastic Vulcanizate (TPV)	
Properties are measured using injection molded plaques.			

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	392 to 446 °F	200 to 230 °C
Mold Temperature	86.0 to 140 °F	30.0 to 60.0 °C
Injection Rate	Fast	Fast

Copyright © 2015 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**

United States - Avon Lake
+1 440 930 1000
United States - McHenry
+1 815 385 8500

Asia

China - Guangzhou
+86 20 8732 7260
China - Shenzhen
+86 755 2969 2888
China - Suzhou
+86 512 6823 24 38
China - Suzhou
+86 512 6265 2600
Hong Kong -
+852 2690 5332
Taiwan - Yonghe City,
+886 9396 99740, +886 2929 1849

Europe

Germany - Gaggenau
+49 7225 6802 0
Spain - Barbastro (Huesca)
+34 974 310 314



Beyond Polymers.

Better Business Solutions.™

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 21 5080 1188

PolyOne Europe

6 Giällewee
+352 269 050 35

Copyright ©, 2015 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.