

Versaflex™ OM 1040X-1

Technical DataSheet | Supplied by Avient (Formerly PolyOne)

Versaflex™ OM 1040X-1 is a translucent thermoplastic elastomer (TPE) grade. Possesses good surface aesthetics, rubbery feel, soft touch and good moldability. Allows good adhesion to wide variety of substrates such as PC, ABS, PC/ABS and provides good colorability, processability and processing stability. Is suitable for processing by injection molding. Used in overmolding, flexible grips, transparent or translucent parts, medical/ healthcare and soft touch applications. Complies with FDA, ISO 10993 Part 4 & 5, USP Class VI and RoHS regulations.

Product Type	Unspecified TPE
Physical Form	Pellets
Appearance	Translucent
Product Status	COMMERCIAL
Geographical Availability	Africa, Asia / Pacific, Central and Eastern Europe, Middle East and Central Asia, North America, South and Central America, Western Europe
Applications/ Recommended for	Healthcare / Medical Injection molding - thermoplastics
Food contact approval	Yes
Labels/Agency Rating	RoHS ISO 10993 Part 4 ISO 10993 Part 5 USP Class VI
Key Features	Adhesion, Good Colorability, Good Moldability, Good Processability, Good Processing Stability, Good Surface Finish, Good

Versaflex™ OM 1040X-1 Properties

Physical	Value & Unit	Test Condition	Test Method
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Melt Mass-Flow Rate (MFR or MFI = Melt Flow Index or MI = Melt Index) 16 g/10 min 200°C, 5 Kg ASTM D1238

Melt Mass-Flow Rate (MFR or MFI = Melt Flow Index or MI = Melt Index) 9.0 g/10 min 190°C, 2.16 Kg ASTM D1238

Linear Mold Shrinkage, Flow 2.0 - 2.6 % ASTM D955

Specific Gravity 0.920 ASTM D792

Mechanical	Value & Unit	Test Condition	Test Method
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Tensile Strength at Break	3.47 MPa	At 23°C, Die C, 2 hr	ASTM D412
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Tensile Strength	1.24 MPa	100% Strain, 73°F/23°C, Die C, 2 hr	ASTM D412
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Tensile Strength	2.08 MPa	300% Strain, 73°F/23°C, Die C, 2 hr	ASTM D412
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Elongation at Break	580 %	At 23°C, Die C, 2 hr	ASTM D412
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Hardness, Shore A	42	At 10s	ASTM D2240
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Tear Strength	17.5 kN/m		ASTM D624
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Compression Set	22 %	73°F, 22 hr	ASTM D395B
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Fill Analysis	Value & Unit	Test Condition	Test Method
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Apparent Viscosity	11.7 Pa-s	392°F, 11200/sec	ASTM D3835
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Versaflex™ OM 1040X-1 Processing Guidelines

Injection Molding	Value & Unit	Test Condition	Test Method
Suggested Max Regrind	20 %		
Rear Temperature	166 - 188 °C		
Middle Temperature	182 - 199 °C		
Front Temperature	188 - 204 °C		
Nozzle Temperature	193 - 216 °C		
Mold Temperature	21.1 - 32.2 °C		
Back Pressure	0.00 - 0.862 MPa		
Screw Speed	75 - 125 rpm		
Injection Speed	1 - 5 in/sec		
Boost Pressure (1st Stage)	200 - 600 psi		
Hold Pressure (2nd Stage)	30 %		
Hold Time (Thick Part)	4 - 10 s		
Hold Time (Thin Part)	1 - 3 s		
Processing (Melt) Temperature	188 - 210 °C		

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