



Versaflex™ HC MT226

Thermoplastic Elastomer

Key Characteristics

Product Description

Versaflex™ HC MT226 is an exceptionally clear, high performance TPE developed for medical tubing for healthcare. Versaflex™ HC MT226 has been specially formulated to be free of any plasticizers .
New Product. Commercial specifications have not been established.

- Flexible
- Formulated without Plasticizers
- High Clarity

General

Material Status	• Commercial: Active	
Regional Availability	• Africa & Middle East • Asia Pacific	• Latin America • North America
Features	• Good Flexibility	• High Clarity
Uses	• Medical/Healthcare Applications	• Tubing
Agency Ratings	• FDA Unspecified Rating • ISO 10993 Part 4	• ISO 10993 Part 5 • USP Class VI ¹
RoHS Compliance	• RoHS Compliant	
Appearance	• Clear/Transparent	
Forms	• Pellets	
Processing Method	• Extrusion	

Technical Properties ²

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	0.890	0.890	ASTM D792
Films	Typical Value (English)	Typical Value (SI)	Test Method
Oxygen Permeability			ASTM D3985
70°F (21°C), 73 mil (1800 µm)	990 cm ³ ·mil/100in ² /atm/24 hr	390 cm ³ ·mm/m ² /atm/24 hr	
Oxygen Transmission Rate			ASTM D3985
70°F (21°C), 73 mil (1800 µm)	13 cm ³ /100 in ² /24 hr	210 cm ³ /m ² /24 hr	
Elastomers	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress ^{3, 4} (300% Strain, 73°F (23°C))	885 psi	6.10 MPa	ASTM D412
Tensile Strength ^{3, 4} (Break, 73°F (23°C))	1600 psi	11.0 MPa	ASTM D412
Tensile Elongation ^{3, 4} (Break, 73°F (23°C))	600 %	600 %	ASTM D412
Compression Set			ASTM D395B
72°F (22°C), 22 hr	20 %	20 %	
113°F (45°C), 22 hr	51 %	51 %	
158°F (70°C), 22 hr	67 %	67 %	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore A, 10 sec)	84	84	ASTM D2240

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Fill Analysis	Typical Value (English)	Typical Value (SI)	Test Method
Apparent Viscosity			ASTM D3835
392°F (200°C), 1340 sec ⁻¹	172 Pa·s	172 Pa·s	
392°F (200°C), 11200 sec ⁻¹	36.0 Pa·s	36.0 Pa·s	

Processing Information

Extrusion	Typical Value (English)	Typical Value (SI)
Melt Temperature	360 to 400 °F	182 to 204 °C
Die Temperature	340 to 390 °F	171 to 199 °C

Extrusion Notes

Color concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Versaflex™ HC MT226. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25 - 40g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. Liquid color can be used, but mineral oil based carriers may have a significant effect on the final hardness value. Concentrates based on PVC should not be used. A high color match consistency can be obtained by using precolored compounds available from GLS. The final determination of color concentrate suitability should be determined by customer trials.

Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP).

Drying is not Required

Rear: 330F-370F
Center: 350F-400F
Front: 360F-420F
Screw: 100-500RPM

Notes

¹ Please contact PolyOne GLS Thermoplastic Elastomers for a complete copy of the GLS Healthcare Policy.

1. The Customer must notify GLS of any FDA Class I and/or European Union Class I medical devices for each specific product and application.

2. The Customer shall not knowingly manufacture, use, sell or otherwise supply, directly or indirectly products or compounds made from GLS products in any of the following without prior written approval by GLS for each specific product or application:

a. Cosmetics

b. Drugs and other Pharmaceuticals

c. Temporary or permanent implantation in the human body, regardless of the intended duration of implantation

d. Class II and Class III Medical Devices as defined in 21 CFR 860.3 ("Medical Devices")

e. Class IIa, IIb and III as defined in Directive 93/42/EEC

² Typical values are not to be construed as specifications.

³ Die C

⁴ 2 hr

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. 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 21 5080 1188

PolyOne Europe

6 Giällewee
+352 269 050 35

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