Technical Information

ENGAGE™ 8480K Health+
Polyolefin Elastomer

Overview

ENGAGE™ 8480K HEALTH+™ Polyolefin Elastomer is an ethylene-octene copolymer that offers excellent performance as a contact layer in multilayer film structures and profile extrusion of tubing and hoses in medical and pharmaceutical applications that demand low extractables / leachables. It has good clarity, toughness, and flexibility.

ENGAGE™ 8480K HEALTH+™ also has excellent compatibility with other polyolefins, allowing for efficient blending and coextrusion.

Main Characteristics:

- Pellet form
- Good clarity, toughness, and flexibility
- Heat sealable

Applications:

- Single use bioreactor contact layer film
- Molded articles
- Blends
- Profile extrusion tubing and hoses

Complies with:

- U.S. FDA 21CFR 177.1520 (c) 3.2c
- USP Class VI
- Animal Derived Materials Free

Consult the regulations for complete details.

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.902	g/cm³	0.902	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	1.0	g/10 min	1.0	g/10 min	ASTM D1238
Mooney Viscosity (ML 1+4, 250°F (121°C))	20	MU	20	MU	ASTM D1646
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus - 100% Secant [1] (Compression Molded)	1160	psi	8.00	MPa	ASTM D638
Tensile Strength [1] (Break, Compression Molded)	3600	psi	24.8	MPa	ASTM D638
Tensile Elongation [1]					ASTM D638
Break, Compression Molded	660	%	660	%	
Flexural Modulus					ASTM D790
1% Secant : Compression Molded	12100	psi	83.1	MPa	
2% Secant : Compression Molded	11800	psi	81.5	MPa	
Elastomers	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tear Strength [2]	521	lbf/in	91.2	kN/m	ASTM D624
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Durometer Hardness					ASTM D2240
Shore A, 1 sec, Compression Molded	89		89		
Shore D, 1 sec, Compression Molded	42		42		
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Glass Transition Temperature	-23.8	°F	-31.0	°C	Dow Method
Vicat Softening Temperature	192	°F	89.0	°C	ASTM D1525
Melting Temperature (DSC) [3]	210	°F	99.0	°C	Dow Method
Peak Crystallization Temperature (DSC)	183	°F	84.0	°C	Dow Method

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] 20 in/min (510 mm/min)

[2] Die C

[3] 10°C/min