Technical Information

VERSIFY™ 2200
Plastomer

Overview

VERSIFY™ 2200 Plastomer is a resin with a low melt flow rate making it suitable for blown film, blow molding, extrusion and thermoforming. It is an excellent sealant and is particularly suitable for use in BOPE structures. It has excellent compatibility with PP and is an useful agent to bring softness and temperature performance.

Main Characteristics

- Pellet
- Low Melt Flow Rate
- Good sealant
- Compatible with PP
- Soft polypropylene

Applications

- Blown Film
- Sealant
- Soft films
- BOPE
- Extrusion Applications

Complies with:

- EU, No 10/2011
- U.S. FDA FCN 909
- U.S. FDA 21 CFR 175.105(c)(5)
- Consult the regulations for complete details.

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.876	g/cm³	0.876	g/cm³	ASTM D792
Melt Mass-Flow Rate (230°C/2.16 kg)	2.0	g/10 min	2.0	g/10 min	ASTM D1238
Total Crystallinity	21	%	21	%	Dow Method
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Strength (Break, Compression Molded)	2970	psi	20.5	MPa	ASTM D638
Tensile Elongation [1]					ASTM D638
Break, Compression Molded	690	%	690	%	
Flexural Modulus - 1% Secant (Compression Molded)	14500	psi	99.9	MPa	ASTM D790
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Thickness - Tested	2	mil	51	µm	
Secant Modulus					ASTM D882
2% Secant, MD : 2.0 mil (51 µm)	12600	psi	86.5	MPa	
2% Secant, TD : 2.0 mil (51 µm)	13700	psi	94.4	MPa	
Tensile Strength					ASTM D882
MD : Yield, 2.0 mil (51 µm)	1550	psi	10.7	MPa	
TD : Yield, 2.0 mil (51 µm)	1460	psi	10.1	MPa	
MD : Break, 2.0 mil (51 µm)	4280	psi	29.5	MPa	
TD : Break, 2.0 mil (51 µm)	3810	psi	26.3	MPa	
Elmendorf Tear Strength [2]					ASTM D1922
MD : 2.0 mil (51 µm)	590	g	590	g	
TD : 2.0 mil (51 µm)	1300	g	1300	g	
Seal Initiation Temperature [3]					Dow Method
2.0 mil (51 µm)	140	°F	60.0	°C	
Ultimate Seal Strength Temperature					Dow Method
2.0 mil (50.8 µm)	176	°F	80	°C	

Hardness	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Durometer Hardness [4]					ASTM D2240
Shore A, Compression Molded	94		94		
Shore D, Compression Molded	42		42		
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Glass Transition Temperature	-11.2	°F	-24.0	°C	Dow Method
Vicat Softening Temperature	145	°F	63.0	°C	ASTM D1525
Melting Temperature (DSC)	180	°F	82.2	°C	Dow Method
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gardner Gloss					ASTM D523
20°, 39.4 mil (1000 µm), Compression Molded	110		110		
60°, 39.4 mil (1000 µm), Compression Molded	128		128		
Haze (1550 mil (39400 µm), Injection Molded)	5.00	%	5.00	%	ASTM D1003

Notes

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

[1] 2.0 in/min (50 mm/min)

[2] Method B

[3] Temperatures at which 1 lb/in. (4.4 N/25.4 mm) heat seal strength is achieved.

[4] Hardness after 10 seconds.