AMPLIFY™ GR 204

The Dow Chemical Company - Functional Polymer

Sunday, November 3, 2019

General Information

Product Description

AMPLIFY™ GR 204 Functional Polymer is a maleic anhydride grafted (MAH) polymer concentrate designed as a blend component for unmodified polyethylene. AMPLIFY GR 204 Functional Polymer promotes adhesion of polyethylene to polyamide and ethylene vinyl alcohol (EVOH). The functionality of this polymer also promotes adhesion between metal, polyolefins, cellulose, polyester, polycarbonate, glass, and foil.

Main Characteristics:

- Maleic anhydride modified HDPE
- Adhesive concentrate for use in blown or cast film and coating applications

Complies with:

- U.S. FDA 21 CFR 175.105

Consult the regulations for complete details.

General			
Material Status	• Commercial: Active		
Availability	• Europe	• Latin America	• North America
Additive	• Antiblock: No	• Processing Aid: No	• Slip: No
Agency Ratings	• FDA 21 CFR 175.105		
Forms	• Pellets		
Processing Method	• Cast Film		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.954	g/cm³	ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	12	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	12	g/10 min	ISO 1133
MAH Graft Level [2]	Very High		Internal Method
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [3] (Break)	2320	psi	ASTM D638
Tensile Stress (Break)	2320	psi	ISO 527-2/51
Tensile Elongation [3] (Break)	100	%	ASTM D638
Tensile Strain (Break)	100	%	ISO 527-2/51
Flexural Modulus - 2% Secant	114000	psi	ASTM D790A
Flexural Modulus - 2% Secant	114000	psi	ISO 178
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness			ASTM D2240
Shore A	97		
Shore D	64		
Shore Hardness			ISO 868
Shore A	97		
Shore D	64		
Thermal	**Nominal Value**	**Unit**	**Test Method**
Vicat Softening Temperature	250	°F	ASTM D1525
Vicat Softening Temperature	250	°F	ISO 306
Melting Temperature (DSC)	261	°F	Internal Method

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Additional Information

Molded in accordance with ASTM D4976.

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] Low: <0.25 wt%, Medium 0.25-0.5, High >0.5 wt%, Very High >1.0 wt%

[3] 2.0 in/min