

AMPLIFY™ TY 1151

Functional Polymer

The Dow Chemical Company

Message:

AMPLIFY™ TY 1151 Functional Polymer is a maleic anhydride grafted (MAH) polymer intended for use in blends. In tie layers for flexible packaging, AMPLIFY TY 1151 Functional Polymer promotes adhesion of Polyethylene to barrier polymers such as polyamide and ethylene vinyl alcohol (EVOH) and other polar substrates.

Typical blending levels in polyethylene let-down resin are 30-40% for adhesion to EVOH and 15-25% for adhesion to nylon.

Main Characteristics:

Excellent adhesion to polyamide and EVOH and polyethylene

Excellent physical properties

Wide range of process and service temperature

For blown and cast film, and coating applications

Complies with:

U.S. FDA 21 CFR 175.105(c)(5)

U.S. FDA 21 CFR 176.170(b)(2)

U.S. FDA 21 CFR 176.180(b)(1)

U.S. FDA 21 CFR 177.1520(with restrictions)

Consult the regulations for complete details.

General Information			
Agency Ratings	FDA 21 CFR 175.105		
	FDA 21 CFR 176.170		
	FDA 21 CFR 176.180		
	FDA 21 CFR 177.1520		
Forms	Pellets		
Physical	Nominal Value	Unit	Test Method
Density	0.920	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.5	g/10 min	ASTM D1238
MAH Graft Level ¹	Medium		Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ²			ASTM D638
Yield	12.0	MPa	
Break	12.0	MPa	
Tensile Elongation ³ (Break)	800	%	ASTM D638
Flexural Modulus ⁴	276	MPa	ASTM D790
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	97.0	°C	ASTM D1525
Melting Temperature (DSC)	124	°C	Internal Method
NOTE			
1.	Low: 0.5 wt%		
2.	Molded in accordance with ASTM D4976.		

3.	Molded in accordance with ASTM D4976.
4.	Molded in accordance with ASTM D4976.

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