



AMPLIFY™ TY 1151 Functional Polymer

Overview

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.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.920 g/cm ³	0.920 g/cm ³	ASTM D792
Melt Index (190°C/2.16 kg)	2.5 g/10 min	2.5 g/10 min	ASTM D1238
MAH Graft Level	Medium	Medium	Dow Method ¹
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638 ²
Yield	1740 psi	12.0 MPa	
Break	1740 psi	12.0 MPa	
Tensile Elongation (Break)	800 %	800 %	ASTM D638 ²
Flexural Modulus	40000 psi	276 MPa	ASTM D790 ²
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	207 °F	97.0 °C	ASTM D1525
Melting Temperature (DSC)	255 °F	124 °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 Low: <0.25 wt%, Medium 0.25-0.5, High >0.5 wt%

² Molded in accordance with ASTM D4976.

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Additional Information

North America		Europe/Middle East	+800-3694-6367
U.S. & Canada:	1-800-441-4369		+31-11567-2626
	1-989-832-1426	Italy:	+800-783-825
Mexico:	+1-800-441-4369		
Latin America		South Africa	+800-99-5078
Argentina:	+54-11-4319-0100		
Brazil:	+55-11-5188-9000		
Colombia:	+57-1-219-6000	Asia Pacific	+800-7776-7776
Mexico:	+52-55-5201-4700		+603-7965-5392

www.dowplastics.com

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