

AMPLIFY™ TY 1251

Functional Polymer
The Dow Chemical Company

Message:

AMPLIFY™ TY 1251 Functional polymer is a maleic anhydride grafted (MAH) polyolefin which is designed for the tie layer market segment. AMPLIFY* TY 1251 is a high melt strength polymer with a grafting level which is specifically designed for multi-layer pipe applications where high melt strength, good adhesion to various substrates, and toughness are desired properties. This grade is fully formulated and designed to be used directly in the application.

Main Characteristics:

- Excellent processability
- Strong adhesion to many polar substrates
- Excellent physical properties
- High melt strength
- Wide range of process and service temperature
- Low gels to ensure minimal defects

Complies with:

- US FDA

Consult the regulations for complete details.

General Information			
Agency Ratings	FDA Unspecified Rating		
Forms	Pellets		
Physical	Nominal Value	Unit	Test Method
Density	0.919	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.55	g/10 min	ASTM D1238
MAH Graft Level ¹	Low		Internal Method
Oxidation Temperature - (OIT) @220°C	107	°C	ASTM D3350
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Break)	14.5	MPa	ASTM D638
Tensile Elongation ³ (Break)	500	%	ASTM D638
Flexural Modulus - 2% Secant ⁴	207	MPa	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact ⁵ (23°C)	No Break		ASTM D256A
Thermal	Nominal Value	Unit	Test Method
Melting Temperature (DSC)	123	°C	Internal Method
NOTE			
1.	Low: 0.5 wt%		
2.	Molded in accordance with ASTM D4703.		
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4.	Molded in accordance with ASTM D4703.		
5.	Molded in accordance with ASTM D4703.		

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