



# AMPLIFY™ TY 1251 Functional Polymer

## Overview

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.

## Additive

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.919 g/cm <sup>3</sup>	0.919 g/cm <sup>3</sup>	ASTM D792
Melt Index (190°C/2.16 kg)	0.55 g/10 min	0.55 g/10 min	ASTM D1238
MAH Graft Level <sup>1</sup>	Low	Low	Dow Method
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength <sup>2</sup> (Break)	2100 psi	14.5 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	500 %	500 %	ASTM D638
Flexural Modulus - 2% Secant <sup>2</sup>	30000 psi	207 MPa	ASTM D790B
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact <sup>2</sup> (73°F (23°C))	No Break	No Break	ASTM D256A
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Melting Temperature (DSC)	253 °F	123 °C	Dow Method
Oxidation Temperature - (OIT) @220°C	225 °F	107 °C	ASTM D3350

## Notes

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

<sup>1</sup> Low: <0.25 wt%, Medium 0.25-0.5, High >0.5 wt%

<sup>2</sup> Molded in accordance with ASTM D4703.

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