



AMPLIFY™ EA 102 Functional Polymer

- Overview**
- High performance packaging applications
 - Polymer modification
 - Tie layer to PVDC and Polyolefins
 - Superior additive concentrate carrier
 - Excellent thermal stability
 - Complies with U.S. FDA 21 CFR 175.105
 - Complies with U.S. FDA 21 CFR 177.1320 (with Restrictions)
 - Consult the regulations for complete details.

AMPLIFY™ EA 102 Functional Polymer is produced via a high-pressure reactor. This ethylene-ethyl acrylate (EEA) copolymer exhibits high flexibility and imparts low temperature toughness to a wide range of engineering resins. This polymer demonstrates excellent blend compatibility with other polyolefins. It can be utilized as a tie layer between polyolefins and a variety of polar substrates, such as metal, polyvinylidene chloride (PVDC), polyolefins, cellulose, polyester, polycarbonate, glass, foil, PVC, PET, and Polystyrene.

| Physical | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|---------------------------|-------------------------|-------------------------|
| Density | 0.931 g/cm ³ | 0.931 g/cm ³ | ASTM D792 ISO 1183 |
| Melt Index (190°C/2.16 kg) | 6.0 g/10 min | 6.0 g/10 min | ASTM D1238 ISO 1133 |
| Comonomer Content | 18.5 % | 18.5 % | ASTM D3594 ¹ |
| Mechanical | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Tensile Strength | | | ASTM D638 ISO 527-2 |
| Yield | 430 psi | 2.96 MPa | |
| Break | 1850 psi | 12.8 MPa | |
| Tensile Elongation | | | ASTM D638 ISO 527-2 |
| Yield | 11 % | 11 % | |
| Break | 750 % | 750 % | |
| Flexural Modulus - 2% Secant | 7200 psi | 49.6 MPa | ASTM D790B ISO 178 |
| Impact | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Tensile Impact Strength | 300 ft·lb/in ² | 630 kJ/m ² | ASTM D1822 ² |
| Hardness | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Durometer Hardness | | | ASTM D2240 ISO 868 |
| Shore D | 30 | 30 | |
| Shore A | 86 | 86 | |
| Thermal | Nominal Value (English) | Nominal Value (SI) | Test Method |
| Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed | 90.0 °F | 32.2 °C | ASTM D648 |
| Brittleness Temperature | < -105 °F | < -76.1 °C | ASTM D746 |
| Vicat Softening Temperature | 133 °F | 56.1 °C | ASTM D1525 ISO 306 |
| Melting Temperature (DSC) | 208 °F | 97.8 °C | Dow Method |
| Peak Crystallization Temperature (DSC) | 176 °F | 80.0 °C | Dow Method |

Additional Information

Molded and tested in accordance with ASTM D4976.

Notes

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

¹ Calibration Range is 15 - 20% EA; Pathlength is normalized; Plaque/Film Thickness is 15 mil; Press Temperature is 160°C

² Type S

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