AFFINITY™ PT 1451G1

Polyolefin Plastomer

The Dow Chemical Company

Message:

AFFINITY[™] PT 1451G1 Polyolefin Plastomer (POP) produced using INSITE[™] Technology from Dow, is specifically designed for extrusion coating and other cast extrusion processing.

AFFINITY PT 1451G1 Polyolefin Plastomer is a tough and high performance and low temperature sealant. Its ease of processability in combination with other common extrusion coating polyolefins, i.e. LDPE or PRIMACOR[™] polymers, provides optimum sensory performance. The high clarity and adhesion to PP makes coatings of AFFINITY PT 1451G1 Polyolefin Plastomer fit for use in combination with OPP or primed PET high clarity films. Coextrusions of AFFINITY PT 1451G1 Polyolefin Plastomer for adhesion to foil offer cost effective high performance sealant structures with exceptional potential for source reduction.

Note:

AFFINITY PT 1451G1 Polyolefin Plastomer should comply with FDA regulation 21 CFR 177.1520 (c) 3.2c and with most European food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. Please contact your nearest Dow office regarding food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

Flexible packaging

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| General Information | | | |
|--|------------------------|------------|-----------------|
| Agency Ratings | EU No 10/2011 | | |
| | FDA 21 CFR 177.1520(c) | 3.2c | |
| | | | |
| Forms | Pellets | | |
| Processing Method | Extrusion Coating | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 0.902 | g/cm³ | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (190°C/2.1 | 6 | | |
| kg) | 7.5 | g/10 min | ISO 1133 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Stress ¹ | | | ISO 527-2 |
| Yield | 5.00 | MPa | |
| Break | 20.0 | MPa | |
| Tensile Strain ² (Break) | 1000 | % | ISO 527-2 |
| Films | Nominal Value | Unit | Test Method |
| Seal Initiation Temperature ³ | 83.0 | °C | Internal Method |
| Water Vapor Transmission ⁴ | 390 | g/m²/24 hr | Internal Method |
| Thermal | Nominal Value | Unit | Test Method |
| Vicat Softening Temperature | 79.0 | °C | ASTM D1525 |
| Melting Temperature | 98.0 | °C | DSC |
| Extrusion | Nominal Value | Unit | Test Method |
| Melt Temperature | 270 to 320 | °C | |
| Minimum Coating Weight ⁵ | < 8.0 | g/m² | Internal Method |
| Neck-in ⁶ (290°C) | 130.0 | mm | Internal Method |
| NOTE | | | |

| 1. | At 290°C set temperature. |
|----|---|
| 2. | At 290°C set temperature. |
| | 25 g/m ² coatings at 290°C set |
| 3. | temperature |
| | 23°C, 95% R.H.; Divide by coating |
| | weight in g/m2 to obtain actual |
| 4. | WVTR. |
| 5. | At 290°C set temperature. |
| 6. | At 290°C set temperature. |

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