

# PRIMACOR™ 3460

## Copolymer

### Introduction

PRIMACOR™ 3460 Copolymer is an ethylene acrylic acid copolymer suitable for extrusion coating and extrusion lamination applications. PRIMACOR™ 3460 Copolymer has been specifically designed for use as a sealant and adhesive layer in flexible packaging laminates and thin paper coating.

PRIMACOR™ 3460 Copolymer exhibits:

- Excellent heat sealability and hot tack
- Excellent adhesion to metallic, paper and polyethylene substrates
- Good stress crack resistance
- Designed specifically for high line speeds and low processing temperature
- Insensitive to moisture

Applications:

- Flexible packaging
- Thin paper coating
- Metallic substrate lamination

Complies with:

- US. FDA 21 CFR 177.1310(a)(1)
- EU. No 10/2011

Additives:

- Antiblock: No
- Slip: No

### Properties

|                         | Nominal Value (English)                                 | Nominal Value (SI)                        | Test Method  |
|-------------------------|---|---|--|
| <b>Resin Properties</b> | Density   | 0.938 g/cm <sup>3</sup>                   | 0.938 g/cm <sup>3</sup><br>ASTM D792<br>ISO 1183     |
|                         | Melt Index (2.16 kg @190°C)                             | 20 g/10min                                | 20 g/10min<br>ASTM D1238<br>ISO 1133                 |
|                         | Comonomer Content <sup>1</sup>                          | 9.7 %                                     | 9.7 %<br>SK Method                                   |
|                         | Vicat Softening Temperature                             | 162 °F                                    | 72.2 °C<br>ASTM D1525<br>ISO 306                     |
|                         | Melting Temperature (DSC)                               | 203 °F                                    | 95.0 °C<br>SK Method                                 |
| <b>Film Properties</b>  | Seal Initiation Temperature <sup>2</sup>                | 185 °F                                    | 85.0 °C<br>SK Method                                 |
|                         | Water Vapor Transmission Rate<br>100 °F (38 °C), 90% RH | 1.1<br>g·mil/100in <sup>2</sup> /atm/24hr | 0.44<br>g·mm/m <sup>2</sup> /atm/24hr<br>DIN 53122/2 |

|  | Nominal Value (English)   | Nominal Value (SI) | Test Method                        |
|--|---|--------------------|------------------------------------|
| <b>Mechanical Properties</b>           | Tensile Strength at Yield<br>(Compression Molded)   | 1050 psi           | 7.24 MPa<br>ASTM D638<br>ISO 527-2 |
|  | Tensile Strength at Break<br>(Compression Molded)   | 2350 psi           | 16.2 MPa<br>ASTM D638<br>ISO 527-2 |
|  | Tensile Elongation at Break<br>(Compression Molded)   | 580 %              | 580 %<br>ASTM D638<br>ISO 527-2    |
| <b>Extrusion</b>                       | Melt Temperature  | 428 - 500 °F       | 220 - 260 °C                       |
|  | Minimum Coating Thickness   | 0.40 mil           | 10 µm<br>SK Method                 |
|  | Minimum Coating Weight  | 6.0 lb/ream        | 9.8 g/m <sup>2</sup><br>SK Method  |
|  | Neck-in <sup>3</sup>  | 2.8 in.            | 71.1 mm<br>SK Method               |
| <b>Extrusion Condition<sup>4</sup></b> | <ul style="list-style-type: none"> <li>Screw Size: 3.5 in. (89 mm); 30:1 L/D</li> <li>Die Gap: 20 mil (0.508 mm)</li> <li>Die: 30 in. (762 mm) die deckled to 24 in. (609.6 mm)</li> <li>Melt Temperature: 425 °F (218 °C)</li> <li>Output: 250 lb/hr (113.4 kg/hr)</li> <li>Air Gap: 6 in. (152 mm)</li> </ul> |                    |                                    |

<sup>1</sup> Comonomer content measured by a SK proprietary method that has equivalent accuracy as compared to ASTM D 4094.

<sup>2</sup> 25 g/m<sup>2</sup> coatings at 290 °C set temperature.

<sup>3</sup> 550 °F (288 °C), 1.0 mil (25.4 µm)

<sup>4</sup> Equipment used to process this resin should be constructed of corrosion resistant materials. Dies and adapters are recommended to be stainless steels and/or duplex chrome or nickel plated.

**Notes**

These are *typical values* and are *not be construed as specifications*. The physical properties are highly dependent on the manufacturing conditions. So customers should confirm performances by their own tests.

For additional sales, order and technical assistance

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