

# K44-11-128 Polyethylene Copolymer

K44-11-128 is a high molecular weight, high density polyethylene copolymer for large part blow molding. It combines excellent processability and outstanding physical performance, particularly environmental stress crack resistance (ESCR) and impact properties. This resin meets the Food and Drug Administration requirements of 21CFR 177.1520.

## Typical Properties<sup>1</sup>

|  | Values        |                        | ASTM Method |
|--|---------------|------------------------|-------------|
|  | English Units | SI Units               |             |
| <b>Resin</b>                                 |               |                        |             |
| Density                                      | —             | 0.947 g/cc             | D4883       |
| Melt Index 190°C/ 21.6 kg                    | —             | 12.0 g/10 min          | D1238       |
| <b>Compression Molded Samples</b>            |               |                        |             |
| <b>Tensile Strength (2 in/min)</b>           |               |                        | D638        |
| @ Yield                                      | 3,500 psi     | 24.1 MPa               |             |
| @ Break                                      | 5,500 psi     | 37.9 MPa               |             |
| <b>Elongation (2 in/min)</b>                 |               |                        | D638        |
| @ Yield                                      | 10.5 %        | 10.5 %                 |             |
| @ Break                                      | 900 %         | 900 %                  |             |
| <b>Flexural Modulus</b>                      |               |                        | D790A       |
| Tangent Method                               | 164,000 psi   | 1130 MPa               |             |
| 2% Secant Method                             | 122,000 psi   | 841 MPa                |             |
| <b>Notched Izod Impact Strength</b>          | 5.8 ft-lbf/in | 30.3 kJ/m <sup>2</sup> | D256        |
| <b>Hardness (Shore D)</b>                    | 63            | 63                     | D2240       |
| <b>Vicat Softening Point</b>                 | 253 F         | 123 C                  | D1525       |
| <b>Brittleness Temperature</b>               | <-103 F       | <-75 C                 | D746        |
| <b>Heat Deflection Temperature</b>           |               |                        | D648        |
| @ 66 psi (455 kPa)                           | 149 F         | 65 C                   |             |
| @ 264 psi (1,820 kPa)                        | 113 F         | 45 C                   |             |
| <b>Environmental Stress Crack Resistance</b> |               |                        | D1693       |
| Condition B, 100% Igepal, F50 (hrs.)         | >2,000        | >2,000                 |             |

<sup>1</sup> Typical properties will vary and are not to be used for specification purposes.