# SureSpec HS-030

### High Impact Polystyrene

#### **Genesis Polymers**

#### Message:

HS-030 is a certified prime resin designed for extrusion-thermoforming applications requiring good rigidity and elongation. The low residual volatiles of this resin makes it particularly suitable for packaging taste and odor sensitive articles. HS-030 is a medium-flow grade that offers excellent melt uniformity and consistency of flow, superior impact resistance and very good extrusion and thermoform processability. HS-030 complies with FDA regulation 21CFR 177.1640, and with most international regulations concerning the use of Polystyrene in contact with food articles.

| General Information                                     |                         |          |             |  |
|---|-------------------------|----------|-------------|--|
| Features  | Food Contact Acceptable |          |             |  |
|   | Good Flow               |          |             |  |
|   | Good Processability     |          |             |  |
|   | High Elongation         |          |             |  |
|   | High Impact Resistance  |          |             |  |
|   | High Rigidity           |          |             |  |
|   | Low Residuals           |          |             |  |
|   | Low to No Odor          |          |             |  |
|   | Low to No Taste         |          |             |  |
| Uses  | Packaging               |          |             |  |
| Agency Ratings  | FDA 21 CFR 177.1640     |          |             |  |
| Forms   | Pellets                 |          |             |  |
| Processing Method                                       | Extrusion               |          |             |  |
| •   | Thermoforming           |          |             |  |
|   |                         |          |             |  |
| Physical  | Nominal Value           | Unit     | Test Method |  |
| Specific Gravity  | 1.05                    | g/cm³    | ASTM D792   |  |
| Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)                | 3.0                     | g/10 min | ASTM D1238  |  |
| Hardness  | Nominal Value           | Unit     | Test Method |  |
| Rockwell Hardness (R-Scale)                             | 55                      |          | ASTM D785   |  |
| Mechanical  | Nominal Value           | Unit     | Test Method |  |
| Tensile Modulus   | 2200                    | MPa      | ASTM D638   |  |
| Tensile Strength <sup>1</sup> (Yield)                   | 24.8                    | MPa      | ASTM D638   |  |
| Tensile Elongation <sup>2</sup> (Break)                 | 45                      | %        | ASTM D638   |  |
| Flexural Modulus - 1% Secant <sup>3</sup>               | 2280                    | MPa      | ASTM D790   |  |
| Impact  | Nominal Value           | Unit     | Test Method |  |
| Notched Izod Impact (3.18 mm, Injection Molded)         | 120                     | J/m      | ASTM D256   |  |
| Thermal   | Nominal Value           | Unit     | Test Method |  |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 93.0                    | °C       | ASTM D648   |  |
| ·   |                         |          |             |  |

| Vicat Softening Temperature | 102        | °C | ASTM D1525 |
|-----------------------------|------------|----|------------|
| NOTE                        |            |    |            |
| 1.                          | 51 mm/min  |    |            |
| 2.                          | 51 mm/min  |    |            |
| 3.                          | 1.3 mm/min |    |            |

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