

## Technical Data Sheet : CertyForm P1680 (PL HP671T) Polypropylene, Homopolymer

### Product Description

The polymer grade is a nucleated polypropylene homopolymer with a gamma x-ray stabilizing additivition for usage in injection molding applications. Exhibits very high stiffness combined with an excellent transparency. Typically used in rigid, high transparency pharmaceutical and diagnostic applications

All potential activities for applications in the pharmaceutical, medical device, laboratory and diagnostics area have to be discussed with the relevant Technical and Business contacts first.

Information regarding regulatory status, including supported, prohibited, or restricted applications, is provided in the **Product Regulatory Summary** and the **Safety Data Sheet (SDS)**.

### General

|                      |                                                                                                                                           |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Applications         | Diagnostic Applications; Healthcare Applications; Labware; Medical Devices; Syringes                                                      |
| Market               | Healthcare                                                                                                                                |
| Processing Method    | Injection Molding                                                                                                                         |
| Attribute            | Autoclavable; E-Beam Sterilizable; Ethylene Oxide Sterilisation; High Stiffness; Homopolymer; Medium Transparency; Radiation Sterilizable |
| Internal ref. number | 1Q191, BEN9862                                                                                                                            |
| Revision             | April 2026                                                                                                                                |

### Properties.

| Typical Properties                                                   | Nominal Value* | Units             | Test Method   |
|----------------------------------------------------------------------|----------------|-------------------|---------------|
| <b>Physical</b>                                                      |                |                   |               |
| Melt Flow Rate, (230 °C/2.16 kg)                                     | 55             | g/10 min          | ISO 1133-1    |
| Density, (23 °C)                                                     | 0.9            | g/cm <sup>3</sup> | ISO 1183-1    |
| <b>Mechanical</b>                                                    |                |                   |               |
| Tensile Modulus                                                      | 1900           | MPa               | ISO 527-1, -2 |
| Tensile Stress at Yield                                              | 39             | MPa               | ISO 527-1, -2 |
| Tensile Strain at Break                                              | 16             | %                 | ISO 527-1, -2 |
| Tensile Strain at Yield                                              | 7.5            | %                 | ISO 527-1, -2 |
| <b>Impact</b>                                                        |                |                   |               |
| Charpy Impact Strength - Notched, (23 °C, Type 1, Edgewise, Notch A) | 2.6            | kJ/m <sup>2</sup> | ISO 179       |
| <b>Hardness</b>                                                      |                |                   |               |
| Ball Indentation Hardness, (H 358/30)                                | 72             | MPa               | ISO 2039-1    |
| <b>Thermal</b>                                                       |                |                   |               |
| Vicat Softening Temperature, (A50)                                   | 155            | °C                | ISO 306       |
| Heat Deflection Temperature B, (0.45 MPa, Unannealed)                | 105            | °C                | ISO 75B-1, -2 |
| <b>Optical</b>                                                       |                |                   |               |
| Haze, (1 mm - injection molded disc)                                 | 18             | %                 | ASTM D1003    |
| Gloss, (45°)                                                         | 125            |                   | ASTM D2457    |

\*)These are typical property values not to be construed as specification limits.

### **Processing Techniques**

Users should determine the conditions necessary to obtain optimum product properties and suitability of the product for the intended application.

### **Company Information**

For further information regarding the Velogy, please visit <http://www.velogy.com>

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