

# Torelina™ A305M D1 PPS

## TECHNICAL DATA

### Product Description

High filler, High strength, High flow

|                          |                                                                                                           |
|--------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Uses</b>              | <ul style="list-style-type: none"> <li>Automotive Applications</li> <li>Automotive Electronics</li> </ul> |
| <b>Processing Method</b> | <ul style="list-style-type: none"> <li>Injection Molding</li> </ul>                                       |
| <b>ISO Designation</b>   | <ul style="list-style-type: none"> <li>&gt;PPS-(GF+MD)50&lt;</li> </ul>                                   |
| <b>Type</b>              | <ul style="list-style-type: none"> <li>PPS/GF+Mineral filler reinforced</li> </ul>                        |

### ASTM & ISO Properties

| Physical                                                 | Nominal Value | Unit                     | Test Method     |
|----------------------------------------------------------|---------------|--------------------------|-----------------|
| Density (23°C)                                           | 1.75          | g/cm³                    | ISO 1183        |
| Spiral Flow <sup>1</sup>                                 | 120           | mm                       | Internal Method |
| Molding Shrinkage <sup>2</sup>                           |               |                          | Internal Method |
| Across Flow : 3.00 mm                                    | 0.75          | %                        |                 |
| Flow : 3.00 mm                                           | 0.16          | %                        |                 |
| Water Absorption <sup>3</sup> (24 hr, 23°C)              | 0.020         | %                        | ISO 62          |
| Mechanical                                               | Nominal Value | Unit                     | Test Method     |
| Tensile Strength (23°C)                                  | 180           | MPa                      | ISO 527-2       |
| Tensile Strain (Break, 23°C)                             | 1.3           | %                        | ISO 527-2       |
| Flexural Modulus (23°C)                                  | 17000         | MPa                      | ISO 178         |
| Flexural Stress (23°C)                                   | 260           | MPa                      | ISO 178         |
| Impact                                                   | Nominal Value | Unit                     | Test Method     |
| Charpy Notched Impact Strength (23°C)                    | 8.0           | kJ/m²                    | ISO 179         |
| Charpy Unnotched Impact Strength (23°C)                  | 40.0          | kJ/m²                    | ISO 179         |
| Hardness                                                 | Nominal Value | Unit                     | Test Method     |
| Rockwell Hardness (R-Scale)                              | 122           |                          | ISO 2039-2      |
| Thermal                                                  | Nominal Value | Unit                     | Test Method     |
| Deflection Temperature Under Load<br>1.8 MPa, Unannealed | > 260         | °C                       | ISO 75-2/A      |
| Melting Temperature                                      | 278           | °C                       | ISO 11357-3     |
| CLTE                                                     |               |                          | ISO 11359-2     |
| Flow                                                     | 1.8           | cm <sup>3</sup> -5/cm/°C |                 |
| Transverse                                               | 3.0           | cm <sup>3</sup> -5/cm/°C |                 |
| Electrical                                               | Nominal Value | Unit                     | Test Method     |
| Volume Resistivity                                       | 1.0E+14       | ohms·m                   | IEC 60093       |
| Electric Strength                                        | 24            | kV/mm                    | IEC 60243-1     |
| Dielectric Constant (23°C, 1 MHz)                        | 5.0           |                          | IEC 60250       |
| Dissipation Factor (23°C, 1 MHz)                         | 0.002         |                          | IEC 60250       |
| Flammability                                             | Nominal Value | Unit                     | Test Method     |
| Flame Rating <sup>4</sup> (0.35 mm, Equivalent)          | V-0           |                          | Internal Method |

Toray Industries, Inc.

