



**Product Data Sheet &  
General Processing Conditions**

**RTP 4605 HI FR  
Syndiotactic Polystyrene (SPS)  
Glass Fiber  
Impact Modified  
Flame Retardant**

**PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS**

| PERMANENCE                                               | English                    | SI Metric    | ASTM TEST |
|----------------------------------------------------------|----------------------------|--------------|-----------|
| Primary Additive                                         | 30 %                       | 30 %         |           |
| Specific Gravity                                         | 1.41                       | 1.41         | D 792     |
| Molding Shrinkage<br>1/8 in (3.2 mm) section             | 0.0020 in/in               | 0.20 %       | D 955     |
| <b>MECHANICAL</b>                                        |                            |              |           |
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 1.2 ft-lbs/in              | 67 J/m       | D 256     |
| unnotched 1/8 in (3.2 mm) section                        | 6.0 ft-lbs/in              | 320 J/m      | D 4812    |
| Tensile Strength                                         | 14750 psi                  | 102 MPa      | D 638     |
| Tensile Elongation                                       | 1.5 %                      | 1.5 %        | D 638     |
| Tensile Modulus                                          | 1.40 x 10 <sup>6</sup> psi | 9653 MPa     | D 638     |
| Flexural Strength                                        | 22500 psi                  | 155 MPa      | D 790     |
| Flexural Modulus                                         | 1.45 x 10 <sup>6</sup> psi | 9998 MPa     | D 790     |
| <b>THERMAL</b>                                           |                            |              |           |
| Deflection Temperature<br>@ 264 psi (1820 kPa)           | 400 °F                     | 204 °C       | D 648     |
| Ignition Resistance*                                     |                            |              |           |
| Flammability**                                           | V-0 @ 1/16 in              | V-0 @ 1.5 mm | D 3801    |

**PROPERTY NOTES**

Data herein is typical and not to be construed as specifications.

Unless otherwise specified, all data listed is for natural or black colored materials. Pigments can affect properties.

\* This rating is not intended to reflect hazards of this or any other material under actual fire conditions.

\*\* Values per RTP Company testing.

**GENERAL PROCESSING FOR INJECTION MOLDING**

|                    | English           | SI Metric     |
|--------------------|-------------------|---------------|
| Injection Pressure | 10000 - 15000 psi | 69 - 103 MPa  |
| Melt Temperature   | 560 - 620 °F      | 293 - 327 °C  |
| Mold Temperature   | 160 - 300 °F      | 71 - 149 °C   |
| Drying             | 2 hrs @ 180 °F    | 2 hrs @ 82 °C |
| Moisture Content   | 0.02 %            | 0.02 %        |
| Dew Point          | -20 °F            | -29 °C        |