



**Product Data Sheet &  
General Processing Conditions**

**RTP 1205 S-65D  
Ester-based Thermoplastic Polyurethane Elastomer (TPUR/TPU)  
Glass Fiber**

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

| <b>PERMANENCE</b>                            | <b>English</b>        | <b>SI Metric</b> | <b>ASTM<br/>TEST</b> |
|----------------------------------------------|-----------------------|------------------|----------------------|
| Primary Additive                             | 30 %                  | 30 %             |                      |
| Specific Gravity                             | 1.44                  | 1.44             | D 792                |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0005 - 0.0020 in/in | 0.05 - 0.20 %    | D 955                |

**MECHANICAL**

|                                                          |                            |          |        |
|----------------------------------------------------------|----------------------------|----------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 7.5 ft-lbs/in              | 400 J/m  | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | No Break                   | No Break | D 4812 |
| Tensile Strength                                         | 10500 psi                  | 72 MPa   | D 638  |
| Tensile Elongation                                       | > 10.0 %                   | > 10.0 % | D 638  |
| Tensile Modulus                                          | 0.45 x 10 <sup>6</sup> psi | 3103 MPa | D 638  |
| Flexural Strength                                        | 10000 psi                  | 69 MPa   | D 790  |
| Flexural Modulus                                         | 0.35 x 10 <sup>6</sup> psi | 2413 MPa | D 790  |
| Hardness<br>Shore D, instantaneous                       | 75                         | 75       | D 2240 |

**THERMAL**

|                      |              |             |       |
|----------------------|--------------|-------------|-------|
| Ignition Resistance* |              |             |       |
| Flammability**       | HB @ 1/16 in | HB @ 1.5 mm | D 635 |

**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**

|                    | <b>English</b>           | <b>SI Metric</b>        |
|--------------------|--------------------------|-------------------------|
| Injection Pressure | 5000 - 15000 psi         | 34 - 103 MPa            |
| Melt Temperature   | 400 - 430 °F             | 204 - 221 °C            |
| Mold Temperature   | 80 - 140 °F              | 27 - 60 °C              |
| Drying             | 4 - 6 hrs @ 210 - 230 °F | 4 - 6 hrs @ 99 - 110 °C |
| Moisture Content   | < 0.02 %                 | < 0.02 %                |
| Dew Point          | < -20 °F                 | < -29 °C                |

**PROCESSING NOTES**

Desiccant Type Dryer Required.