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**Product Data Sheet &  
General Processing Conditions**

**RTP 2305 A FR  
Rigid Thermoplastic Polyurethane (RTPU)  
Glass Fiber  
Flame Retardant**

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

| <b>PERMANENCE</b>                            | <b>English</b>        | <b>SI Metric</b> | <b>ASTM TEST</b> |
|----------------------------------------------|-----------------------|------------------|------------------|
| Primary Additive                             | 30 %                  | 30 %             |                  |
| Specific Gravity                             | 1.62                  | 1.62             | D 792            |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0010 - 0.0025 in/in | 0.10 - 0.25 %    | D 955            |
| Water Absorption, 24 hrs @ 23°C              | 0.120 %               | 0.120 %          | D 570            |

**MECHANICAL**

|                                                          |                            |             |        |
|----------------------------------------------------------|----------------------------|-------------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 2.0 ft-lbs/in              | 107 J/m     | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | 12.0 ft-lbs/in             | 641 J/m     | D 4812 |
| Tensile Strength                                         | 17000 psi                  | 117 MPa     | D 638  |
| Tensile Elongation                                       | 2.0 - 3.0 %                | 2.0 - 3.0 % | D 638  |
| Tensile Modulus                                          | 1.20 x 10 <sup>6</sup> psi | 8274 MPa    | D 638  |
| Flexural Strength                                        | 25000 psi                  | 172 MPa     | D 790  |
| Flexural Modulus                                         | 1.15 x 10 <sup>6</sup> psi | 7929 MPa    | D 790  |

**THERMAL**

|                                                |               |              |        |
|------------------------------------------------|---------------|--------------|--------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | 180 °F        | 82 °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**

|                    | <b>English</b>     | <b>SI Metric</b>   |
|--------------------|--------------------|--------------------|
| Injection Pressure | 10000 - 15000 psi  | 69 - 103 MPa       |
| Melt Temperature   | 430 - 470 °F       | 221 - 243 °C       |
| Mold Temperature   | 125 - 200 °F       | 52 - 93 °C         |
| Drying             | 4 - 6 hrs @ 225 °F | 4 - 6 hrs @ 107 °C |
| Moisture Content   | 0.01 %             | 0.01 %             |
| Dew Point          | -40 °F             | -40 °C             |

**PROCESSING NOTES**

Desiccant Type Dryer Required.