



**Product Data Sheet &  
General Processing Conditions**

**RTP 2000 HC FR A  
Polyester Alloy  
Flame Retardant  
UV Stabilized  
Medical Cleaner Resistant**

RTP 2000 HC series are polyester alloys designed to withstand the aggressive cleaners used to disinfect medical equipment

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

| <b>PERMANENCE</b>                            | <b>English</b>        | <b>SI Metric</b> | <b>ASTM TEST</b> |
|--|-----------------------|------------------|------------------|
| Specific Gravity                             | 1.27                  | 1.27             | D 792            |
| Melt Flow Rate<br>@ 240 °C, / 5 kg           | 7.00 g/10 min         | 7.00 g/10 min    | D 1238           |
| Molding Shrinkage<br>1/8 in (3.2 mm) section | 0.0050 - 0.0080 in/in | 0.50 - 0.80 %    | D 955            |

**MECHANICAL**

|  |                            |          |        |
|--|----------------------------|----------|--------|
| Impact Strength, Izod<br>notched 1/8 in (3.2 mm) section | 12.0 ft-lbs/in             | 641 J/m  | D 256  |
| unnotched 1/8 in (3.2 mm) section                        | No Break                   | No Break | D 4812 |
| Tensile Strength   | 6000 psi                   | 41 MPa   | D 638  |
| Tensile Elongation                                       | > 50.0 %                   | > 50.0 % | D 638  |
| Tensile Modulus  | 0.21 x 10 <sup>6</sup> psi | 1448 MPa | D 638  |
| Flexural Strength  | 9000 psi                   | 62 MPa   | D 790  |
| Flexural Modulus   | 0.21 x 10 <sup>6</sup> psi | 1448 MPa | D 790  |

**THERMAL**

|  |               |              |        |
|--|---------------|--------------|--------|
| Deflection Temperature<br>@ 264 psi (1820 kPa) | 180 °F        | 82 °C        | D 648  |
| @ 66 psi (455 kPa)                             | 205 °F        | 96 °C        | D 648  |
| Ignition Resistance*                           |               |              |        |
| Flammability**                                 | V-0 @ 1/16 in | V-0 @ 1.5 mm | D 3801 |
| Flammability**                                 | 5VA @ 1/8 in  | 5VA @ 3.0 mm | D 5048 |

**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 | 15000 - 20000 psi  | 103 - 138 MPa     |
| Melt Temperature   | 480 - 520 °F       | 249 - 271 °C      |
| Mold Temperature   | 150 - 180 °F       | 66 - 82 °C        |
| Drying             | 4 - 6 hrs @ 190 °F | 4 - 6 hrs @ 88 °C |
| Moisture Content   | < 0.02 %           | < 0.02 %          |
| Dew Point          | -40 °F             | -40 °C            |

**PROCESSING NOTES**

26 May 2015 JSD

This information is intended to be used only as a guideline for designers and processors of modified thermoplastics. Because design and processing is complex, a set solution will not solve all problems. Observation on a "trial and error" basis may be required to achieve desired results.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

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