

# RTP 211 HS

Polyamide 66

RTP Company

Message:

Warning: The status of this material is 'Commercial: Limited Issue'  
The data for this material has not been recently verified.  
Please contact RTP Company for current information prior to specifying this grade.  
RTP 211 is a 60% glass reinforced nylon 6/6. It offers the highest strength, stiffness, and heat deflection temperature of the glass reinforced nylons.  
-Preliminary Product Data per RTP Co.-

| General Information                |   |                   |             |
|------------------------------------|---|-------------------|-------------|
| Filler / Reinforcement             | Glass fiber reinforced material, 60% filler by weight |                   |             |
| Additive                           | heat stabilizer                                       |                   |             |
| Features                           | Thermal Stability                                     |                   |             |
| RoHS Compliance                    | Contact manufacturer                                  |                   |             |
| Appearance                         | Black   |                   |             |
|                                    | Natural color   |                   |             |
| Forms                              | Particle  |                   |             |
| Processing Method                  | Injection molding                                     |                   |             |
| Physical                           | Nominal Value   | Unit              | Test Method |
| Specific Gravity                   | 1.68  | g/cm <sup>3</sup> | ASTM D792   |
| Molding Shrinkage - Flow (3.18 mm) | 0.20  | %                 | ASTM D955   |
| Water Absorption (23°C, 24 hr)     | 0.40  | %                 | ASTM D570   |
| Hardness                           | Nominal Value   | Unit              | Test Method |
| Rockwell Hardness (R-Scale)        | 121   |                   | ASTM D785   |
| Mechanical                         | Nominal Value   | Unit              | Test Method |
| Tensile Strength                   | 231   | MPa               | ASTM D638   |
| Tensile Elongation (Break)         | 1.5   | %                 | ASTM D638   |
| Flexural Modulus                   | 17900   | MPa               | ASTM D790   |
| Flexural Strength                  | 345   | MPa               | ASTM D790   |
| Compressive Strength               | 207   | MPa               | ASTM D695   |
| Impact                             | Nominal Value   | Unit              | Test Method |
| Notched Izod Impact (3.18 mm)      | 150   | J/m               | ASTM D256   |
| Unnotched Izod Impact (3.18 mm)    | 1100  | J/m               | ASTM D4812  |
| Thermal                            | Nominal Value   | Unit              | Test Method |
| Deflection Temperature Under Load  |   |                   | ASTM D648   |
| 0.45 MPa, not annealed             | 260   | °C                | ASTM D648   |
| 1.8 MPa, not annealed              | 260   | °C                | ASTM D648   |
| CLTE - Flow                        | 2.7E-5  | cm/cm/°C          | ASTM D696   |
| Thermal Conductivity               | 0.55  | W/m/K             | ASTM C177   |

| Electrical                  | Nominal Value | Unit    | Test Method |
|-----------------------------|---------------|---------|-------------|
| Volume Resistivity          | 1.0E+14       | ohms·cm | ASTM D257   |
| Dielectric Strength         | 20            | kV/mm   | ASTM D149   |
| Dielectric Constant (1 MHz) | 3.90          |         | ASTM D150   |
| Dissipation Factor (1 MHz)  | 0.014         |         | ASTM D150   |
| Arc Resistance              | 120           | sec     | ASTM D495   |
| Flammability                | Nominal Value | Unit    | Test Method |
| Flame Rating (1.59 mm)      | HB            |         | UL 94       |

#### Additional Information

Mold Shrinkage, Linear-Flow, ASTM D-955, 0.25in.: 3mil/in.

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 79.4          | °C   |
| Drying Time            | 4.0           | hr   |
| Suggested Max Moisture | 0.20          | %    |
| Suggested Max Regrind  | 20            | %    |
| Rear Temperature       | 274 - 288     | °C   |
| Middle Temperature     | 274 - 288     | °C   |
| Front Temperature      | 274 - 288     | °C   |
| Mold Temperature       | 65.6 - 107    | °C   |
| Injection Pressure     | 82.7 - 138    | MPa  |

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#### Recommended distributors for this material

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