

# RTP 4705 FR

Polytrimethylene Terephthalate  
RTP Company

Message:

Glass Fiber - Flame Retardant - UL94 V-0

| General Information                                     |                                                       |                   |             |
|---------------------------------------------------------|-------------------------------------------------------|-------------------|-------------|
| UL YellowCard                                           | E84658-251607                                         |                   |             |
| Filler / Reinforcement                                  | Glass fiber reinforced material, 30% filler by weight |                   |             |
| Features                                                | Flame retardancy                                      |                   |             |
| RoHS Compliance                                         | Contact manufacturer                                  |                   |             |
| Processing Method                                       | Injection molding                                     |                   |             |
| Physical                                                | Nominal Value                                         | Unit              | Test Method |
| Specific Gravity                                        | 1.70                                                  | g/cm <sup>3</sup> | ASTM D792   |
| Molding Shrinkage - Flow (3.20 mm)                      | 0.15 - 0.30                                           | %                 | ASTM D955   |
| Moisture Content                                        | 0.010                                                 | %                 |             |
| Primary Additive                                        | 30                                                    | %                 |             |
| Mechanical                                              | Nominal Value                                         | Unit              | Test Method |
| Tensile Modulus                                         | 12100                                                 | MPa               | ASTM D638   |
| Tensile Strength                                        | 124                                                   | MPa               | ASTM D638   |
| Tensile Elongation (Yield)                              | 1.0 - 2.0                                             | %                 | ASTM D638   |
| Flexural Modulus                                        | 11400                                                 | MPa               | ASTM D790   |
| Flexural Strength                                       | 172                                                   | MPa               | ASTM D790   |
| Impact                                                  | Nominal Value                                         | Unit              | Test Method |
| Notched Izod Impact (3.20 mm)                           | 64                                                    | J/m               | ASTM D256   |
| Unnotched Izod Impact (3.20 mm)                         | 430                                                   | J/m               | ASTM D4812  |
| Thermal                                                 | Nominal Value                                         | Unit              | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 210                                                   | °C                | ASTM D648   |
| Electrical                                              | Nominal Value                                         | Unit              | Test Method |
| Dielectric Strength <sup>1</sup> (in Oil)               | 18                                                    | kV/mm             | ASTM D149   |
| Dielectric Constant (1 MHz)                             | 3.69                                                  |                   | ASTM D150   |
| Dissipation Factor (1 MHz)                              | 0.011                                                 |                   | ASTM D150   |
| Flammability                                            | Nominal Value                                         | Unit              | Test Method |
| Flame Rating                                            |                                                       |                   | UL 94       |
| 0.800 mm                                                | V-0                                                   |                   | UL 94       |
| 1.50 mm                                                 | 5VA                                                   |                   | UL 94       |
| Injection                                               | Nominal Value                                         | Unit              |             |
| Drying Temperature                                      | 127                                                   | °C                |             |
| Drying Time                                             | 4.0 - 6.0                                             | hr                |             |

|                        |            |     |
|------------------------|------------|-----|
| Dew Point              | -40.0      | °C  |
| Processing (Melt) Temp | 232 - 260  | °C  |
| Mold Temperature       | 87.8 - 121 | °C  |
| Injection Pressure     | 68.9 - 103 | MPa |

Injection instructions

Desiccant Type Dryer Required.

NOTE

- Method A (short time)

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