

# HiFill FR® HIPS FR

High Impact Polystyrene  
Techmer Engineered Solutions

Message:

HiFill FR® HIPS FR is a High Impact Polystyrene product. It can be processed by injection molding and is available in North America.  
Characteristics include:  
Flame Rated  
Flame Retardant

| General Information                 |                   |                   |             |
|-------------------------------------|-------------------|-------------------|-------------|
| UL YellowCard                       | E253782-101773873 |                   |             |
| Features                            | Flame Retardant   |                   |             |
| Appearance                          | Colors Available  |                   |             |
| Forms                               | Pellets           |                   |             |
| Processing Method                   | Injection Molding |                   |             |
| Physical                            | Nominal Value     | Unit              | Test Method |
| Specific Gravity                    | 1.15              | g/cm <sup>3</sup> | ASTM D792   |
| Molding Shrinkage - Flow (3.18 mm)  | 0.50              | %                 | ASTM D955   |
| Water Absorption (24 hr)            | 0.050             | %                 | ASTM D570   |
| Hardness                            | Nominal Value     | Unit              | Test Method |
| Rockwell Hardness (L-Scale)         | 60                |                   | ASTM D785   |
| Mechanical                          | Nominal Value     | Unit              | Test Method |
| Tensile Strength (Yield)            | 20.0              | MPa               | ASTM D638   |
| Tensile Elongation (Yield)          | 30                | %                 | ASTM D638   |
| Flexural Modulus                    | 1930              | MPa               | ASTM D790   |
| Flexural Strength                   | 26.2              | MPa               | ASTM D790   |
| Impact                              | Nominal Value     | Unit              | Test Method |
| Notched Izod Impact (23°C, 3.18 mm) | 96                | J/m               | ASTM D256   |
| Unnotched Izod Impact (3.18 mm)     | 430               | J/m               | ASTM D256   |
| Thermal                             | Nominal Value     | Unit              | Test Method |
| Deflection Temperature Under Load   |                   |                   | ASTM D648   |
| 0.45 MPa, Unannealed                | 96.1              | °C                |             |
| 1.8 MPa, Unannealed                 | 87.8              | °C                |             |
| CLTE - Flow                         | 6.3E-5            | cm/cm/°C          | ASTM D696   |
| Electrical                          | Nominal Value     | Unit              | Test Method |
| Volume Resistivity                  | 1.0E+14           | ohms · cm         | ASTM D257   |
| Dielectric Strength <sup>1</sup>    | 22                | kV/mm             | ASTM D149   |
| Flammability                        | Nominal Value     | Unit              | Test Method |
| Flame Rating (1.50 mm)              | V-0               |                   | UL 94       |
| NOTE                                |                   |                   |             |

1. Method A (Short-Time)

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