# HiFill® PA6 IM 7040 MB

**Techmer Polymer Modifiers - *Polyamide 6***

## General Information

| General | | |
|---|---|---|
| Material Status | • Commercial: Active | |
| Availability | • North America | |
| Additive | • Heat Stabilizer<br>• Impact Modifier | • Lubricant<br>• Nucleating Agent |
| Features | • Heat Stabilized<br>• Impact Modified | • Lubricated<br>• Nucleated |
| Appearance | • Colors Available | |
| Forms | • Pellets | |
| Processing Method | • Injection Molding | |

## Properties [1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density / Specific Gravity | 1.10 | | ASTM D792 |
| Molding Shrinkage - Flow | 0.013 | in/in | ASTM D955 |
| Water Absorption (24 hr) | 1.5 | % | ASTM D570 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength (Yield) | 8000 | psi | ASTM D638 |
| Tensile Elongation (Break) | 60 | % | ASTM D638 |
| Flexural Modulus | 250000 | psi | ASTM D790 |
| Flexural Strength | 11400 | psi | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | | | ASTM D256 |
| -40°F, 0.125 in | 6.0 | ft·lb/in | |
| -4°F, 0.125 in | 8.5 | ft·lb/in | |
| 73°F, 0.125 in | 12 | ft·lb/in | |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Rockwell Hardness (R-Scale) | 109 | | ASTM D785 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (66 psi, Unannealed) | 340 | °F | ASTM D648 |
| Deflection Temperature Under Load (264 psi, Unannealed) | 142 | °F | ASTM D648 |
| CLTE - Flow | 5.3E-5 | in/in/°F | ASTM D696 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Volume Resistivity | 1.0E+15 | ohms·cm | ASTM D257 |
| Dielectric Strength (Method A (Short-Time)) | 460 | V/mil | ASTM D149 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |
| Flame Rating | HB | | UL 94 |

## Processing Information

| Injection | Nominal Value | Unit |
|---|---|---|
| Drying Temperature | 180 | °F |
| Drying Time | 2.0 to 4.0 | hr |
| Suggested Max Moisture | 0.10 | % |
| Rear Temperature | 490 to 555 | °F |
| Middle Temperature | 490 to 555 | °F |
| Front Temperature | 490 to 555 | °F |
| Processing (Melt) Temp | 460 to 530 | °F |
| Mold Temperature | 150 to 180 | °F |

| | |
|---|---|
| Back Pressure | 50.0 to 100 psi |
| Screw Speed | 30 to 60 rpm |

**Notes**

[1] Typical properties: these are not to be construed as specifications.