# HiFill® ABS GF10 A1

## Acrylonitrile Butadiene Styrene

## **Techmer Engineered Solutions**

#### Message:

HiFill® ABS GF10 A1 is an Acrylonitrile Butadiene Styrene (ABS) product filled with 10% glass fiber. It can be processed by injection molding and is available in North America. Primary characteristic: flame rated.

| General Information                 |                             |          |             |
|-------------------------------------|-----------------------------|----------|-------------|
| Filler / Reinforcement              | Glass Fiber,10% Filler by W | eight    |             |
| Features                            | Good Flow                   |          |             |
| Appearance                          | Colors Available            |          |             |
| Forms                               | Pellets                     |          |             |
| Processing Method                   | Injection Molding           |          |             |
| Physical                            | Nominal Value               | Unit     | Test Method |
| Specific Gravity                    | 1.10                        | g/cm³    | ASTM D792   |
| Molding Shrinkage - Flow (3.18 mm)  | 0.35                        | %        | ASTM D955   |
| Water Absorption (24 hr)            | 0.16                        | %        | ASTM D570   |
| Mechanical                          | Nominal Value               | Unit     | Test Method |
| Tensile Strength (Break)            | 58.6                        | MPa      | ASTM D638   |
| Tensile Elongation (Break)          | 3.0                         | %        | ASTM D638   |
| Flexural Modulus                    | 3280                        | MPa      | ASTM D790   |
| Flexural Strength                   | 91.7                        | MPa      | ASTM D790   |
| Impact                              | Nominal Value               | Unit     | Test Method |
| Notched Izod Impact (23°C, 3.18 mm) | 80                          | J/m      | ASTM D256   |
| Unnotched Izod Impact (3.18 mm)     | 320                         | J/m      | ASTM D256   |
| Thermal                             | Nominal Value               | Unit     | Test Method |
| Deflection Temperature Under Load   |                             |          | ASTM D648   |
| 0.45 MPa, Unannealed                | 102                         | °C       |             |
| 1.8 MPa, Unannealed                 | 96.1                        | °C       |             |
| CLTE - Flow                         | 4.1E-5                      | cm/cm/°C | ASTM D696   |
| Electrical                          | Nominal Value               | Unit     | Test Method |
| Volume Resistivity                  | 1.0E+16                     | ohms·cm  | ASTM D257   |
| Dielectric Strength <sup>1</sup>    | 19                          | kV/mm    | ASTM D149   |
| Flammability                        | Nominal Value               | Unit     | Test Method |
| Flame Rating                        | НВ                          |          | UL 94       |
| Injection                           | Nominal Value               | Unit     |             |
| Drying Temperature                  | 76.7 to 87.8                | °C       |             |
| Drying Time                         | 2.0 to 16                   | hr       |             |
| Rear Temperature                    | 216 to 232                  | °C       |             |
| Middle Temperature                  | 221 to 238                  | °C       |             |
|                                     |                             |          |             |

| Front Temperature      | 210 to 221            | °C |  |
|------------------------|-----------------------|----|--|
| Nozzle Temperature     | 199 to 221            | °C |  |
| Processing (Melt) Temp | 232 to 260            | °C |  |
| Mold Temperature       | 71.1 to 87.8          | °C |  |
| NOTE                   |                       |    |  |
| 1.                     | Method A (Short-Time) |    |  |

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# Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

