

**Matreial Data Sheet** 

技术数据表

NFD Composite Material (Jiangsu) Co., Ltd

# Hepla® H1110CF FR

# Material Description:

**Dew Point** 

Hepla® H1110CF FR is a Acrylonitrile Butadiene Styrene (ABS) product filled with 10% carbon fiber. Characteristics include: Flame Retardant.

| Retardant.                         |  |                   |                            |
|------------------------------------|--|-------------------|----------------------------|
| General                            |  |                   |                            |
| Material Status                    | <ul> <li>Commercial: Active</li> </ul> |                   |                            |
| Availability                       | Asia Pacific                           |                   | North America              |
|                                    | Europe                                 |                   | Latin America              |
|                                    | Middle East                            |                   | Africa                     |
| Filler/Reinforcement               | Carbon Fiber, 10% Filler by            | Weight            |                            |
| Features                           | Flame Retardant                        |                   | Good Dimensional Stability |
|                                    | Good Processability                    |                   | ,                          |
| RoHS Compliance                    | RoHS Compliant                         |                   |                            |
| Processing Method                  | Injection Molding                      |                   |                            |
|                                    | ,                                      |                   |                            |
| Physical Properties                | Typical Value                          |                   | Test Method                |
| Density/Specific Gravity           | 1.24                                   | g/cm <sup>3</sup> | ASTM D792                  |
| Moisture Content                   | 0.1                                    |                   |                            |
| Molding Shrinkage - Flow (3.20 mm) | 0.1 to 0.2                             | %                 | ASTM D955                  |
| Water Absorption (24 hr, 23℃)      | 0.18                                   | %                 | ASTM D570                  |
|                                    |  |                   |                            |
| Mechanical Properties              | Typical Value                          | Unit              | Test Method                |
| Tensile Modulus                    | 9525                                   | MPa               | ASTM D638                  |
| Tensile Strength                   | 101                                    | MPa               | ASTM D638                  |
| Tensile Elongation(Yield)          | 1 to 2.2                               | %                 | ASTM D638                  |
| Flexural Modulus                   | 8771                                   | MPa               | ASTM D790                  |
| Flexural Strength                  | 134.5                                  | MPa               | ASTM D790                  |
|                                    |  |                   |                            |
| Impact Properties                  | Typical Value                          |                   | Test Method                |
| Notched Izod Impact(3.2mm)         | 54                                     | J/m               | ASTM D256                  |
| Unnotched Izod Impact(3.2mm)       | 279                                    | J/m               | ASTM D4812                 |
|                                    |  |                   |                            |
| Flammability                       | Typical Value                          | Unit              | Test Method                |
| Flame Rating(1.5mm)                | V-0                                    |                   | UL 94                      |
| let at the state of                |  | 11. 1             |                            |
| Electrical Properties              | Typical Value                          |                   | Test Method                |
| Volume Resistivity                 | < 1.0E+5                               | Ohms·cm           | ASTM D257                  |
| Thermal Properties                 | Typical Value                          | Heit              | Test Method                |
| Deflection Temperature Under Load  | Typical value                          | Onit              | Test Method<br>ASTM D648   |
| 0.45 MPa,Unannealed                | 107                                    | °C                | A311VI D040                |
|                                    | 107                                    |                   |                            |
| 1.8 MPa, Unannealed                | 104                                    | $^{\circ}$        |                            |
| Processing Information             | Typical Value                          | Unit              |                            |
| Injection Pressure                 | 68.9 to 103                            | MPa               |                            |
| Processing (Melt) Temp             | 204 to 238                             | °C                |                            |
| Mold Temperature                   | 63 to 85                               | $^{\circ}$        |                            |
| Drying Temperature                 | 82                                     | $^{\circ}$        |                            |
| Drying Time                        | 2                                      | hr                |                            |
| Dryllig Tille                      | 10                                     |                   |                            |

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NFD ADVANCED COMPOSITES

Hepla® H1110CF FR

#### CAUTION/警告!

Before using, read the Molding Guide, Material Safety Data Sheets, and Bulletins available from NFD Advanced Composites Sales offices and Distributors supplied to your company. Caution! During drying, purging and molding, small amounts of hazardous gases and/or particulate matter may be released. These may irritate eyes, nose and throat. Use adequate local exhaust ventilation during thermal processing. To prevent resin decomposition, do not contaminate the resin or exceed the recommended melt temperature or hold-up time. Avoid inhalation or skin and eyes contact. Sweep up and dispose of spilled resin to eliminate slipping hazard. 在使用之前,请阅读NFD公司销售办事处和经销商提供给贵公司的材料成型指南、材料安全数据表和公告。警告!在干燥、吹扫和成型过程中,少量有害气体或颗粒物质可能会在被释放,这些可能会刺激眼睛,鼻子和喉咙。热处理过程中请注意做好排气通风工作。为防止树脂分解,请勿污染树脂或超过我们为您推荐的熔融温度或时间。请避免吸入或与皮肤、眼睛等接触。清扫和处理溢出的树脂,以消除滑到的危险。

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The figures indicated here are approximate values. They may be affected by different factors, and the user is not released therefore from the obligation of performing checks and trials of his own. The values indicated here have been compiled on the basis of current tests and findings. Any legally binding guarantee of certain properties, or any suitability for a specific application can not be inferred from the present data. For detailed production regulatory information, contact customer service.

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