

Hepla® H9035GF

Material Description:

Hepla® H9035GF is a 35% glass fiber reinforced PPA, thermal stability, high strength and high modulus, good dimensional stability, excellent electrical properties.

General

| | |
|----------------------|---|
| Material Status | <ul style="list-style-type: none"> Commercial: Active |
| Availability | <ul style="list-style-type: none"> Asia Pacific Europe Middle East North America Latin America Africa |
| Filler/Reinforcement | <ul style="list-style-type: none"> Glass Fiber, 35% Filler by Weight |
| Features | <ul style="list-style-type: none"> Good Dimensional Stability High Strength Automotive Applications Housings Good Electrical Properties Thermal Stability Electrical Parts |
| Uses | <ul style="list-style-type: none"> Automotive Applications Housings |
| Appearance | <ul style="list-style-type: none"> Natural Color |
| Processing Method | <ul style="list-style-type: none"> Injection Molding |

| Physical Properties | Typical Value | Unit | Test Method |
|--------------------------------|---------------|-------------------|-------------|
| Density/Specific Gravity | 1.47 | g/cm ³ | ASTM D792 |
| Molding Shrinkage | | | ASTM D955 |
| Flow | 0.30 to 0.50 | % | |
| Across Flow | 0.40 to 0.60 | % | |
| Water Absorption (Equilibrium) | 0.25 | % | ASTM D570 |

| Hardness | Typical Value | Unit | Test Method |
|-----------------------------|---------------|------|-------------|
| Rockwell Hardness (R-Scale) | 120 | | ASTM D785 |

| Mechanical Properties | Typical Value | Unit | Test Method |
|---|---------------|------|-------------|
| Tensile Strength ¹ | 230 | MPa | ASTM D638 |
| Tensile Elongation ¹ (Break) | 2.4 | % | ASTM D638 |
| Flexural Modulus ² | 12000 | MPa | ASTM D790 |
| Flexural Strength ² | 312 | MPa | ASTM D790 |

| Impact Properties | Typical Value | Unit | Test Method |
|----------------------------------|---------------|------|-------------|
| Charpy Unnotched Impact Strength | > 400 | J/m | ASTM D4812 |
| Notched Izod Impact | 110 | J/m | ASTM D256 |

| Flammability | Typical Value | Unit | Test Method |
|--------------|---------------|------|-------------|
| Flame Rating | | | UL 94 |
| 1.6 mm | HB | | |
| 3.2 mm | HB | | |

| Electrical Properties | Typical Value | Unit | Test Method |
|----------------------------|---------------|---------|-------------|
| Volume Resistivity | 1E+15 | ohms-cm | IEC 60093 |
| Electric Strength | 27 | kV/mm | IEC 60243-1 |
| Comparative Tracking Index | 500 | V | IEC 60112 |

| Thermal Properties | Typical Value | Unit | Test Method |
|--|---------------|------|-------------------------|
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, Unannealed | 280 | °C | |
| 1.8 MPa, Unannealed | 272 | °C | |
| Vicat Softening Temperature ³ | 280 | °C | ASTM D1525 ⁴ |
| Melting Temperature | 310 | °C | ASTM D2133 |

| Processing Information | Typical Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | 100 to 130 | °C |
| Drying Time | 3.0 to 4.0 | hr |
| Rear Temperature | 280 to 300 | °C |
| Middle Temperature | 290 to 330 | °C |
| Front Temperature | 290 to 320 | °C |
| Processing (Melt) Temp | 290 to 300 | °C |
| Mold Temperature | 110 to 150 | °C |
| Injection Rate | Slow-Moderate | |
| Back Pressure | 1.00 to 2.00 | MPa |

Injection Notes

Processing Temp. Limit <340°C

Notes

- ¹ 50 mm/min
- ² 20 mm/min
- ³ .125"
- ⁴ Rate A (50°C/h)

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热熔温度或时间。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。

LEGAL NOTICES/法律声明

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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