

Elastever® E1140GF-86D

Material Description:

Elastever® E1140GF-86D is a Thermoplastic Polyurethane Elastomer(TPU-polyether) product filled with 40% glass fiber. Characteristics include:Wear Resistant.

General

| | |
|----------------------|-------------------------------------|
| Material Status | • Commercial: Active |
| Availability | • Asia Pacific |
| | • Europe |
| | • Middle East |
| Filler/Reinforcement | • Glass Fiber, 40% Filler by Weight |
| | • Abrasion Resistant |
| | • Low Temperature Toughness |
| Features | • Cold Resistant |
| | • Chemical Resistant |
| | • Ageing Resistant |
| Appearance | • Black |
| Forms | • Pellets |
| RoHS Compliance | • RoHS Compliant |
| Processing Method | • Injection Molding |

| Physical Properties | Typical Value | Unit | Test Method |
|--------------------------------|---------------|-------------------|-------------|
| Density/Specific Gravity | 1.54 | g/cm ³ | ASTM D792 |
| Water Absorption (23°C, 24 hr) | 0.15 | % | ASTM D570 |
| Molding Shrinkage - Flow | 0.2 | % | ASTM D955 |

| Hardness | Typical Value | Unit | Test Method |
|------------------------------|---------------|------|-------------|
| Rockwell Hardness (R-Scale) | 119 | | ASTM D785 |
| Durometer Hardness (Shore D) | 86 | | ASTM D2240 |

| Mechanical Properties | Typical Value | Unit | Test Method |
|---------------------------|---------------|------|-------------|
| Tensile Modulus | 9300 | MPa | ASTM D638 |
| Tensile Strength(Yield) | 132 | MPa | ASTM D638 |
| Tensile Elongation(Break) | 5 | % | ASTM D638 |
| Flexural Modulus | 7200 | MPa | ASTM D790 |
| Flexural Strength(Yield) | 175 | MPa | ASTM D790 |
| Compressive Strength | 89 | MPa | ASTM D695 |

| Impact Properties | Typical Value | Unit | Test Method |
|-------------------------------|---------------|------|-------------|
| Notched Izod Impact(3.18mm) | 170 | J/m | ASTM D256 |
| Unnotched Izod Impact(3.18mm) | 1350 | J/m | ASTM D4812 |

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

| Electrical Properties | Typical Value | Unit | Test Method |
|-----------------------------|---------------|---------|-------------|
| Volume Resistivity | 1.00E+11 | Ohms·cm | ASTM D257 |
| Dielectric Strength | 18 | kV/mm | ASTM D149 |
| Dielectric Constant (1 MHz) | 4.2 | | ASTM D150 |
| Dissipation Factor (1 MHz) | 0.017 | | ASTM D150 |
| Arc Resistance | 90 | sec | ASTM D495 |

| Thermal Properties | Typical Value | Unit | Test Method |
|-----------------------------------|---------------|------|-------------|
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, Unannealed | 138 | °C | |
| 1.8 MPa, Unannealed | 94 | °C | |

| | | | |
|----------------------|----------|----------|-----------|
| CLTE - Flow | 2.70E-05 | cm/cm/°C | ASTM D696 |
| Thermal Conductivity | 0.43 | W/m/K | ASTM C177 |

| Processing Information | Typical Value | Unit |
|------------------------|---------------|------|
| Rear Temperature | 182 to 199 | °C |
| Middle Temperature | 188 to 204 | °C |
| Front Temperature | 193 to 210 | °C |
| Mold Temperature | 16 to 66 | °C |
| Injection Pressure | 68.9 to 103 | MPa |

NFD ADVANCED COMPOSITES

Elastever® E1140GF-86D

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处理温度或时间。请避免吸入或与皮肤、眼睛等接触。清扫和处理溢出的树脂，以消除滑倒的危险。

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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