

Matreial Data Sheet

技术数据表 NFD Composite Material (Jiangsu) Co., Ltd

Elastever® E3000 GF H

Material Description:

General

Elastever ® E3000 GF H is a Thermoplastic Polyester Elastomer (TPEE) product filled with glass fiber and Heat Stabilizer. Characteristics include:Environmental Protection,Heat Stabilized.

| Density | General | | | |
|--|------------------------|--|------------------------|---|
| Filter/Reinforcement | Material Status | | | |
| Middle East | | Asia Pacific | | North America |
| Filler/Reinforcement | Availability | • Europe | | Latin America |
| Heat Stabilizer | | Middle East | | Africa |
| Heat Stabilized Fatigue Resistant | Filler/Reinforcement | | | |
| Peatures | Additive | Heat Stabilizer | | |
| Environmental Protection Good Processability Oil Resistant Shock Absorption | | | | Fatigue Resistant |
| Oil Resistant • Heat Resistant • Shock Absorption | | Impact Resistant | | Chemical Resistant |
| Shock Absorption RoHS Compliant Processing Method Injection Molding | Features | Environmental Protection | | Good Processability |
| RoHS Compliance | | | | Heat Resistant |
| Processing Method | | , | | |
| Physical Properties Typical Value Unit Test Mode Density 1.3 g/cm³ ISO Molding Shrinkage - Flow 0.5 % Internal M Water Absorption (23°C, 24 hr) 0.54 % Iso Mechanical Properties Typical Value Unit Test Mr Tensile Modulus 1700 MPa ISO 52 Tensile Stress ISO 527 ISO 527 Yield 46 MPa ISO 527 Break 44 MPa ISO 527 Flexural Modulus, 2.0 mm/min 1350 MPa ISO 527 Flexural Modulus, 2.0 mm/min 1350 MPa ISO 153 Yield 48 MPa ISO 154 Impact Properties Typical Value Unit Test Mr Notched Izod Impact 28 kl/m² ISO 154 Strength, 23°C, 80*10*4 28 kl/m² ISO 154 Unnotched Izod Impact 85 kl/m² ISO 154 Strength, 23°C, 80*10*4 85 kl/m² ISO 154 Heat Deflection Temperature 0.45 MPa, Unannealed 163 °C ISO 75 | RoHS Compliance | | | |
| Density | Processing Method | Injection Molding | | |
| Density | Physical Properties | Typical Value | Unit | Test Method |
| Molding Shrinkage - Flow 0.5 % Internal M Water Absorption (23°C, 24 hr) 0.54 % IS Mechanical Properties Typical Value Unit Test M Tensile Modulus 1700 MPa ISO 52 Tensile Stress ISO 527 ISO 527 Yield 46 MPa MPa Break 44 MPa ISO 527 Flexural Modulus, 2.0 mm/min 1350 MPa ISO 527 Flexural Stress, 2.0 mm/min 48 MPa ISO Yield 48 MPa ISO Impact Properties Typical Value Unit Test M Notched Izod Impact 8 kJ/m² ISO 18 Strength, 23°C, 80*10*4 85 kJ/m² ISO 18 Thermal Properties Typical Value Unit Test M Heat Deflection Temperature 0.45 MPa, Unannealed 163 °C ISO 75 64mm Span, 80*10*4 mm 163 °C ISO 75 1.8 MPa, Unannealed 121 °C ISO 75 64mm Span, 80*10*4 mm 121 °C ISO 75 | | | | ISO 1183 |
| Water Absorption (23°C, 24 hr) 0.54 % IS Mechanical Properties Typical Value Unit Test Middle Tensile Modulus 1700 MPa ISO 52 Tensile Stress ISO 527 Yield 46 MPa Break 44 MPa Tensile Strain(Yield) 15 % Flexural Modulus, 2.0 mm/min 1350 MPa Yield MPa MPa ISO Flexural Stress, 2.0 mm/min 48 MPa Yield MPa Impact Properties Typical Value Unit Test Mid Notched Izod Impact 28 kJ/m² ISO 13 Strength, 23°C, 80*10*4 85 kJ/m² ISO 13 Unnotched Izod Impact 85 kJ/m² ISO 14 Strength, 23°C, 80*10*4 85 kJ/m² ISO 15 Thermal Properties Typical Value Unit Test Mid Heat Deflection Temperature 0.45 MPa, Unannealed 163 °C ISO 75 64mm Span, 80*10*4 mm 121 °C ISO 75 64mm Span, 80*10*4 mm 121 °C | | 0.5 | % | Internal Method |
| Tensile Modulus | | | | ISO 62 |
| Tensile Modulus | Mechanical Properties | Typical Value | Unit | Test Method |
| Tensile Stress | | | | ISO 527-2/1 |
| Yield 46 MPa Break 44 MPa Tensile Strain(Yield) 15 % ISO 527 Flexural Modulus,2.0 mm/min 1350 MPa ISO Flexural Stress,2.0 mm/min Yield 48 MPa ISO Impact Properties Typical Value Unit Test Mr Notched Izod Impact Strength,23°C,80*10*4 28 kJ/m² ISO 1: Unnotched Izod Impact Strength,23°C,80*10*4 85 kJ/m² ISO 1: Thermal Properties Typical Value Unit Test Mr Heat Deflection Temperature 0.45 MPa,Unannealed 163 °C ISO 75 64mm Span,80*10*4 mm 163 °C ISO 75 1.8 MPa, Unannealed 121 °C ISO 75 64mm Span,80*10*4 mm 121 °C ISO 75 | | 1100 | IVII U | ISO 527-2/50 |
| Break 44 MPa Tensile Strain(Yield) 15 % ISO 527 Flexural Modulus, 2.0 mm/min 1350 MPa ISO Flexural Stress, 2.0 mm/min Yield 48 MPa ISO Impact Properties Typical Value Unit Test Mr Notched Izod Impact Strength, 23 ℃, 80*10*4 28 kJ/m² ISO 18 Unnotched Izod Impact Strength, 23 ℃, 80*10*4 85 kJ/m² ISO 18 Thermal Properties Typical Value Unit Test Mr Heat Deflection Temperature 0.45 MPa, Unannealed 64mm Span, 80*10*4 mm 163 ℃ ISO 75 1.8 MPa, Unannealed 64mm Span, 80*10*4 mm 121 ℃ ISO 75 CLTE ISO 11: ISO 11: | | 46 | MPa | 100 321 2700 |
| Tensile Strain(Yield) | | | | |
| Flexural Modulus, 2.0 mm/min Flexural Stress, 2.0 mm/min Yield Impact Properties Notched Izod Impact Strength, 23°C, 80*10*4 Unnotched Izod Impact Strength, 23°C, 80*10*4 Unnotched Izod Impact Strength, 23°C, 80*10*4 Thermal Properties Typical Value Unit Test Modulus, 2.0 mm/min Yield Iso 18 Iso 75 | | | | ISO 527-2/50 |
| Flexural Stress, 2.0 mm/min Yield MPa Iso Impact Properties Notched Izod Impact Strength, 23°C, 80*10*4 Unnotched Izod Impact Strength, 23°C, 80*10*4 Unnotched Izod Impact Strength, 23°C, 80*10*4 Iso 18 Thermal Properties Typical Value Unit Test Mo Iso 18 Thermal Properties Typical Value Unit Test Mo Iso 75 | · / | | | ISO 178 |
| Impact Properties Typical Value Unit Test Month Notched Izod Impact Strength,23°C,80*10*4 28 kJ/m² ISO 18 | | | | |
| Notched Izod Impact Strength,23°C,80*10*4 Unnotched Izod Impact Strength,23°C,80*10*4 85 kJ/m² ISO 18 Thermal Properties Typical Value Unit Test Mo Heat Deflection Temperature 0.45 MPa,Unannealed 64mm Span,80*10*4 mm 1.8 MPa, Unannealed 64mm Span,80*10*4 mm CLTE Strength,23°C,80*10*4 15O 18 15 | • | 48 | MPa | ISO 178 |
| Notched Izod Impact Strength,23°C,80*10*4 Unnotched Izod Impact Strength,23°C,80*10*4 85 kJ/m² ISO 18 Thermal Properties Typical Value Unit Test Mo Heat Deflection Temperature 0.45 MPa,Unannealed 64mm Span,80*10*4 mm 1.8 MPa, Unannealed 64mm Span,80*10*4 mm CLTE Strength,23°C,80*10*4 15O 18 15O | Impact Properties | Typical Value | Unit | Test Method |
| Strength,23℃,80*10*4 28 kJ/m² ISO 18 Unnotched Izod Impact Strength,23℃,80*10*4 85 kJ/m² ISO 18 Thermal Properties Typical Value Unit Test Mo Heat Deflection Temperature 0.45 MPa,Unannealed 163 ℃ ISO 75 64mm Span,80*10*4 mm 121 ℃ ISO 75 CLTE ISO 115 | | | | |
| Unnotched Izod Impact Strength,23℃,80*10*4 Thermal Properties Typical Value Unit Test Mo 163 ℃ ISO 75 64mm Span,80*10*4 mm 1.8 MPa, Unannealed 64mm Span,80*10*4 mm CLTE Unit Test Mo 163 ℃ ISO 75 180 75 | • | 28 | kJ/m² | ISO 180/1A |
| Strength,23°C,80*10*4 Thermal Properties Typical Value Unit Test Mo Unit Unit Test Mo Unit U | | | 2 | |
| Heat Deflection Temperature 0.45 MPa,Unannealed 163 ℃ ISO 75 64mm Span,80*10*4 mm 121 ℃ ISO 75 1.8 MPa, Unannealed 121 ℃ ISO 75 64mm Span,80*10*4 mm ISO 115 CLTE ISO 115 | · | | kJ/m² | ISO 180/1U |
| Heat Deflection Temperature 0.45 MPa,Unannealed 163 ℃ ISO 75 64mm Span,80*10*4 mm 121 ℃ ISO 75 1.8 MPa, Unannealed 121 ℃ ISO 75 64mm Span,80*10*4 mm ISO 115 CLTE ISO 115 | Thermal Properties | Typical Value | Unit | Test Method |
| 0.45 MPa,Unannealed 64mm Span,80*10*4 mm 1.8 MPa, Unannealed 121 ℃ ISO 75 64mm Span,80*10*4 mm 121 ℃ ISO 75 64mm Span,80*10*4 mm 121 ℃ ISO 113 64mm Span,80*10*4 mm | | ., | | |
| 64mm Span,80*10*4 mm 1.8 MPa, Unannealed 64mm Span,80*10*4 mm CLTE 180 75 180 75 180 75 | • | | | 10 0 TT - 1 TT |
| 1.8 MPa, Unannealed 121 °C ISO 75 64mm Span,80*10*4 mm ISO 113 CLTE ISO 113 | | 163 | $^{\circ}\!\mathbb{C}$ | ISO 75-2/Bf |
| 64mm Span,80*10*4 mm CLTE ISO 11: | | | | ISO 75-2/Af |
| CLTE ISO 11: | | 121 | $^{\circ}$ | |
| | | | | ISO 11359-2 |
| | | 3.40E-05 | cm/cm/°C | |
| Transverse:23 to 60° C 2.00E-04 cm/cm/°C | | | | |
| Processing Information Typical Value Unit | Processing Information | Typical Value | Unit | |
| Processing (Melt) Temp 216 to 238 °C | | | | |

| Mold Temperature | 27 to 54 | $^{\circ}\! \mathbb{C}$ |
|------------------------|----------------|--|
| Drying Temperature | 82 | ${\mathbb C}$ |
| Drying Time | 4 | hr |
| Suggested Max Moisture | 0.1 | % |
| Rear Temperature | 182 to 193 | $^{\circ}$ |
| Middle Temperature | 204 to 216 | $^{\circ}\!$ |
| Front Temperature | 227 to 238 | ${\mathbb C}$ |
| Screw Speed | 30 to 60 | rpm |
| Back Pressure | 0.172 to 0.344 | MPa |
| | | |

NFD ADVANCED COMPOSITES

Elastever® E3000 GF 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。

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.

上列数据只作参考用途,它们可能会受不同因素的影响,使用者有责任通过实验自行确定材料特性。上述资料根据现有测试得出,对物料特性是否适合某特殊用途及特性不能给予保证,数据也没有任何法律约束力。更多有关详细的产品监管信息,请联系客户服务。

COMPANY/公司:

Welcome to NFD, where the concept of "New Formula Designer" is upheld and scientific innovation and production are intertwined. Whether you are a designer, engineer or procurement expert, we can help you expand your business and get new inspiration. We adhere to the core values of credibility and integrity, cooperation, efficiency, and innovation, and always put our customers first. Compared with our competitors, we focus on providing more advanced technical formulation, better quality products, more efficient solutions and more thoughtful after-sales services. We understand the markets, the products, and you even more.

感谢您访问新孚达(NFD)! 我们秉承"New Formula Designer"的发展理念,将科研创新与生产应用紧密相连, 无论您是设计师、工程师或者是采购专家, 我们都可以帮助您拓展业务并获得新的灵感 。 我们坚持诚信、合作、效率、创新的核心价值观,始终把客户放在第一位。相比于我们的竞争对手, 我们专注于为您提供更先进的技术配方、更优质的产品, 更好的解决方案及更周到的售后服务, 我们懂市场、我们懂产品、我们更懂你们。

CONTACT:

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