

## 产品说明 Product Description

308H无捻粗纱为无碱连续单股直接纱，采用了E6的玻璃配方，表面涂覆硅烷基浸润剂，专为增强环氧树脂而设计，可适用于胺类或酸酐类固化体系。

308H产品与环氧树脂复合后，机械强度高、疲劳性能好，主要适合高张力的缠绕工艺生产小口径的抽油杆，耐高压的管道、储罐和压力容器等。

*308H direct roving is produced with the E6 glass formulation and coated with a silane-based sizing composition. It is specially designed for reinforcing epoxy resin and suitable for both amine and anhydride curing systems.*

*308H sizing composition gives strong resin-to-glass bonding, which results in excellent mechanical and anti-fatigue properties of the end composites. The product is designed for the high tension winding process. Typical applications include small bore sucker rods, high pressure pipes, storage tanks and pressure vessels.*



## 产品特点 Product Features

- ◎ 高张力下耐磨性好、过渡顺畅性好
- ◎ 制品水煮保留率高
- ◎ 优异的机械性能和抗疲劳强度
- ◎ 具有良好的耐酸腐蚀性
- Good abrasion resistance under high tensions and smooth run-out
- High retention rate in boiling water
- Excellent mechanical properties and fatigue resistance
- Good acid corrosion resistance

## 规格代号 Specification

|  |                           |      |              |
|--|---------------------------|------|--------------|
| 玻璃类型<br>Glass type                       | E6                        |      |              |
| 浸润剂类型<br>Sizing type                     | 硅烷 Silane                 |      |              |
| 典型纤维直径<br>Typical filament diameter (μm) | 17                        | 21   | 24           |
| 典型线密度<br>Typical linear density (tex)    | 600 / 1100<br>1200 / 2400 | 2000 | 2400<br>4800 |
| 示例<br>Example                            | E6DR17-2400-308H          |      |              |

## 技术指标 Technical Parameters

| 项目<br>Item           | 线密度偏差<br>Linear density variation (%)  | 含水率<br>Moisture content (%) | 可燃物含量<br>Sizing content (%) | 断裂强度<br>Breakage strength (N/tex) |
|----------------------|--|-----------------------------|-----------------------------|-----------------------------------|
| 检测方法<br>Test method  | ISO 1889                               | ISO 3344                    | ISO 1887                    | ISO 3341                          |
| 指标<br>Standard range | ± 5 ( < 600 tex )<br>± 4 ( ≥ 600 tex ) | ≤ 0.07                      | 0.55 ± 0.15                 | ≥ 0.40                            |

## 机械性能 Mechanical Properties

| 机械性能<br>Mechanical properties                      | 单位<br>Unit | 实验值<br>Value   | 树脂<br>Resin    | 测试方法<br>Test method |
|--|------------|----------------|----------------|---------------------|
| 拉伸强度<br>Tensile strength                           | MPa (Ksi)  | 2675.0 (388.0) | Amine / DER331 | ASTM D2343          |
| 拉伸模量<br>Tensile modulus                            | GPa (Msi)  | 82.2 (11.9)    | Amine / DER331 | ASTM D2343          |
| 剪切强度<br>Shear strength                             | MPa (Ksi)  | 74.0 (10.7)    | Amine / DER331 | ASTM D2344          |
| 强度保留率(72小时水煮)<br>Strength retention(72 hr boiling) | %          | > 96           | Amine / DER331 | /                   |

以上数据为实验室针对E6DR17-2400-308H产品的具体实验值，仅供参考。

The above data are actual experimental values for E6DR17-2400-308H and to be used for reference only.

## 使用说明 Instructions

- ◎ 本产品可在12个月内使用最佳，使用前应保存在原包装内。
- ◎ 产品使用时注意防护，避免产品擦毛、损伤等情况。
- ◎ 使用前调理纱线的温湿度与环境温湿度平衡，使用时对环境温湿度进行适当控制。
- ◎ 使用时请合理控制张力并保证张力均匀性。

·The product is best used within 12 months after production, and should be kept in the original package before use.  
 ·Care should be taken when using the product to prevent it from being scratched or damaged.  
 ·The temperature and humidity of the product should be conditioned to be close or equal to the ambient temperature and humidity before use, and the ambient temperature and humidity should be properly controlled during the use.  
 ·When using the product, please control the tension properly and ensure the tension uniformity.

## 包装信息 Packaging

| 项目 Item                                  | 单位 unit   | 指标 Standard                  |               |              |               |
|--|-----------|------------------------------|---------------|--------------|---------------|
| 典型包装方式<br>Typical packaging method       | /         | 采用托盘包装<br>Packed on pallets. |               |              |               |
| 典型纱团高度<br>Typical package height         | mm (in)   | 260 (10.2)                   |               |              |               |
| 纱团内径<br>Package inner diameter           | mm (in)   | 160 (6.3)                    |               |              |               |
| 典型纱团外径<br>Typical package outer diameter | mm (in)   | 280 (11.0)                   |               | 310 (12.2)   |               |
| 典型纱团重量<br>Typical package weight         | kg (lb)   | 17 (37.5)                    |               | 22 (48.5)    |               |
| 层数<br>Number of layers                   | 层 (layer) | 3                            | 4             | 3            | 4             |
| 每层纱团个数<br>Number of packages per layer   | 个 (pcs)   | 16                           |               | 12           |               |
| 每托纱团个数<br>Number of packages per pallet  | 个 (pcs)   | 48                           | 64            | 36           | 48            |
| 每托重量<br>Net weight per pallet            | kg (lb)   | 816 (1799.0)                 | 1088 (2398.6) | 792 (1746.1) | 1056 (2328.1) |
| 托盘长度<br>Pallet length                    | mm (in)   | 1140 (44.9)                  |               | 1270 (50.0)  |               |
| 托盘宽度<br>Pallet width                     | mm (in)   | 1140 (44.9)                  |               | 960 (37.8)   |               |
| 托盘高度<br>Pallet height                    | mm (in)   | 940 (37.0)                   | 1200 (47.2)   | 940 (37.0)   | 1200 (47.2)   |

## 贮存 Storage

在没有特殊要求的情况下，玻璃纤维产品应贮存在干燥、阴凉的地方，防止受潮。最佳存储条件为温度  $-10^{\circ}\text{C} \sim 35^{\circ}\text{C}$ ，相对湿度  $\leq 80\%$ 。为确保安全，避免损坏产品，托盘的堆码高度不应超过三层。当堆放两层或三层高时，要求正确地、平稳地移动上面的托盘。

Unless otherwise specified, the fiberglass products should be stored in a dry, cool and moisture proof area. The best temperature and humidity should be maintained at  $-10^{\circ}\text{C} \sim 35^{\circ}\text{C}$  and  $\leq 80\%$  respectively. To ensure safety and avoid damage to the product, the pallets should be stacked not more than three layers high. When the pallets are stacked in two or three layers, special care should be taken to correctly and smoothly move the upper pallet.

