

398 Direct Roving is a single-end continuous roving based on E6 glass formulation. 398 is coated with a silane-based sizing and specifically designed to reinforce epoxy resins and is suitable for amine or anhydride curing systems. 398 is designed for UD, biaxial, and multiaxial woven fabrics, and filament winding process. The combination of 398 and epoxy resin delivers excellent mechanical properties and high modulus. 398 is suitable for prepreg and vacuum-assisted resin infusion processes to manufacture large wind blades, and also for use in FRP pipes and pressure vessels.

### Product Features

- ⊙ Fast and complete wet-out
- ⊙ Good end-use performance
- ⊙ Good mechanical strength and fatigue resistance in end products
- ⊙ Good abrasion resistance and low fuzz
- ⊙ Smooth package-to-package transfer
- ⊙ Excellent acid corrosion resistance

### Identification

Glass Type	E6			
Type of Size	Silane			
Size Code	398			
Linear density tex	300	600	1200	2400
Filament Diameter $\mu\text{m}$	13	17	17	17



### Technical Parameters

Linear Density (%)	Moisture Content (%)	Size Content (%)	Breakage Strength (N/Tex)
ISO1889	ISO3344	ISO1887	ISO3341
$\pm 5$	$\leq 0.10$	$0.55 \pm 0.10$	$\geq 0.40$

### Mechanical Properties

Mechanical Properties	Unit	Value	Resin	Method
Tensile Strength	MPa	2540	epoxy	ASTM D2343
Tensile Modulus	MPa	81951	epoxy	ASTM D2343
Shear strength	MPa	71	epoxy	ASTM D2344
Shear strength retention (72 hr boiling)	%	95	epoxy	—

The above data are actual experimental values for E6DR17-2400-398 and for reference only.

### Storage

Unless otherwise specified, the fiberglass products should be stored in a dry, cool and moisture-proof area. The room temperature and humidity should be always maintained at  $15^{\circ}\text{C} \sim 35^{\circ}\text{C}$  and  $35\% \sim 65\%$ . It is best if the product is used within 12 months after production date. The fiberglass products should remain in their original packaging until just prior to user.

To ensure safety and avoid damage to the product, the pallets should not be stacked more than three layers high. When the pallets are stacked in 2 or 3 layers, special care should be taken to correctly and smoothly move the top pallet.

### Packaging

\* The product can be packed on pallet or in small cardboard boxes.

Package height mm (in)	260 (10)	260 (10)
Package inside diameter mm (in)	160 (6.3)	160 (6.3)
Package outside diameter mm (in)	275 (10.6)	310 (12.2)
Package weight kg (lb)	15.6 (34.4)	22 (48.5)

Number of layers	3	4	3	4
Number of doffs per layer	16		12	
Number of doffs per pallet	48	64	36	48
Net weight per pallet kg (lb)	750 (1653.4)	1000 (2204.6)	792 (1746)	1056 (2328)

Pallet length mm (in)	1120 (44)		1270 (50)	
Pallet width mm (in)	1120 (44)		960 (37.8)	
Pallet height mm (in)	940 (37)	1180 (46.5)	940 (37)	1180 (46.5)

