



## Direct Roving 398-E6 for Filament Winding and Weaving

Direct Roving 398 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 suitable for amine or anhydride curing systems. 398 is designed for UD, biaxial or 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.

### SPECIFICATIONS

Type of Glass  
E6

Type of Fiberglass  
Direct Roving (DR)

Standard  
Linear Mass Densities  
300 – 2400  
grams per metre (Tex)

Filament Diameter  
13 – 17 microns

Most Common Sizes  
E6DR17-2400-398

### FEATURES

- Complete and fast wet-out
- Good end use performance
- Good mechanical strength and fatigue resistance in end products
- Good moisture resistance
- Good wear resistance
- Low fuzz
- Smooth package-to-package transfer under high tension

### RESIN COMPATIBILITY

- Epoxy (EP)

### USES

- FRP pipes
- Large wind blades
- Pressure valves

### TECHNICAL PARAMETERS

Linear Density (%)  
ISO 1889  
± 5%

Moisture Content (%)  
ISO 3344  
≤ 0.10%

Size Content (%)  
ISO 1887  
0.55 ± 0.10%

Breakage Strength (N/tex)  
ISO 3341  
≥ 0.40

### MECHANICAL PROPERTIES

Tensile Strength  
ASTM D2343  
2046 MPa

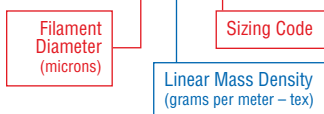
Tensile Modulus  
ASTM D2343  
80511 MPa

Shear Strength  
ASTM D2344  
71 MPa

Shear Strength Retention  
(72 hr. boiling)  
95%

### NOMENCLATURE

E6DR00-000-000

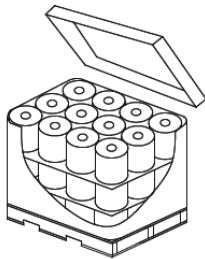


# PACKAGING

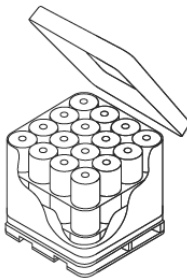
## Direct Roving **398-E6** for Filament Winding and Weaving



Doff



3-Layer Pallet  
12 doffs per Layer



3-Layer Pallet  
16 doffs per Layer

### PACKAGING

Doffs can be packed on pallets or in small cardboard boxes.

Doff:	275	310
Doff outside diameter	275 mm (10.8 in)	310 mm (12.2 in)
Doff inside diameter	160 mm (6.3 in)	160 mm (6.3 in)
Doff height	260 mm (10 in)	260 mm (10 in)
Doff weight	15.6 kg (34.4 lb)	22 kg (48.5 lb)

### Pallet:

	3	4	3	4
Number of layers per pallet	3	4	3	4
Number of doffs per layer	16	16	12	12
Number of doffs per pallet	48	64	36	48
Net weight	750 (1653.4 lb)	1000 kg (2204.6 lb)	792 kg (1746 lb)	1056 kg (2328 lb)
Length	1120 mm (44 in)	1120 mm (44 in)	1270 mm (50 in)	1270 mm (50 in)
Width	1120 mm (44 in)	1120 mm (44 in)	960 mm (37.8 in)	960 mm (37.8 in)
Height	940 mm (37 in)	1180 mm (46.5 in)	940 mm (37 in)	1180 mm (46.5 in)

### STORAGE

Unless otherwise specified, fiberglass products should be stored in a dry, cool and moisture-proof area. Room temperature and humidity should always be maintained at 15°C – 35°C, 35% – 65% respectively.

Best used within 12 months after production date. Fiberglass products should remain in their original packaging until just prior to use.

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