



Direct Roving 396-E6 for Filament Winding, Pultrusion and Weaving

396 Direct Roving, based on E6 glass formulation, is coated with a silane-based sizing and compatible with polyester, vinyl ester, epoxy, and polyurethane resin systems. 396 has excellent resin compatibility. It is suitable for prepreg and vacuum-assisted resin infusion processes to manufacture large wind blades, and also for pultrusion and filament winding processes to manufacture utility poles and container doors.

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
E6DR17-2400-396

FEATURES

- Compatible with multiple resin systems
- Complete and fast wet-out
- Excellent acid corrosion resistance
- Excellent mechanical properties
- Good abrasion resistance
- Good processing properties
- High process flexibility
- Smooth package-to-package transfer under high tension

RESIN COMPATIBILITY

- Epoxy (EP)
- Polyester
- Vinyl ester
- Polyurethane resin

USES

- Doors
- Wind blades

TECHNICAL PARAMETERS

Linear Density (%)
ISO 1889
± 5%

Moisture Content (%)
ISO 3344
≤ 0.10%

Size Content (%)
ISO 1887
0.48 ± 0.10%

Breakage Strength (N/tex)
ISO 3341
≥ 0.40

MECHANICAL PROPERTIES

Tensile Strength
ASTM D2343
2471 MPa

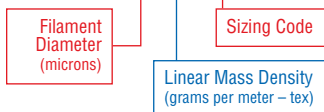
Tensile Modulus
ASTM D2343
81324 MPa

Shear Strength
ASTM D2344
67 MPa

Shear Strength Retention
(72 hr. boiling)
96%

NOMENCLATURE

E6DR00-000-000



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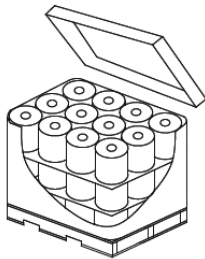
PACKAGING

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



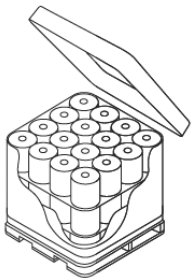
Doff

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)



3-Layer Pallet
12 doffs per Layer

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)



3-Layer Pallet
16 doffs per Layer

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.