

312 Direct Roving is coated with a silane-based sizing compatible with unsaturated polyester, vinyl ester, and epoxy resins, and designed for filament winding, pultrusion, and weaving applications. 312 is suitable for use in FRP pipes, pressure vessels, and profiles, and the woven fabrics converted from 312 are suitable for use in boats, wind blades, chemical tanks, and geotechnical gratings.



Product Features

- ◎ Compatibility with a multiple of resin systems
- ◎ Complete and fast wet-out
- ◎ Good weaving properties and low fuzz
- ◎ Good mechanical properties

Identification

Glass Type	E										
Type of Size	Silane										
Size Code	312										
Linear Density (tex)	275	300	200	1100	1500	1700	2200	2400	8820	9600	
			400	1200				4800			
Filament Diameter(um)	13	14	16	17	18	19	22	24	30	31	

Technical Parameters

Linear Density (%)	Moisture Content (%)	Size Content (%)	Breakage Strength (N/tex)
ISO 1889	ISO 3344	ISO 1887	ISO 3341
±5	≤ 0.10	0.60±0.15	≥0.40

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)	270 (10.6)	310 (12.2)
Package weight kg (lb)	15.6 (34.4)	22 (48.5)

Mechanical Properties

Mechanical Properties	Unit	Value	Resin	Method
Tensile Strength	MPa	2513	Polyester	ASTM D2343
Tensile Modulus	MPa	79164	Polyester	ASTM D2343
Shear strength	MPa	67	EP	ASTM D2344
Shear strength retention (72 hr boiling)	%	93	EP	—

The above data are actual experimental values for EDR17-2400-312 and for reference only.

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)

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°C~35°C and 35% ~ 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.

