DATA SHEET

JUSHIUSA

Direct Roving 318

for Filament Winding, Weaving and Pultrusion

Direct Roving 318 is an E-glass roving produced by directly winding a certain number of individual fibers from the bushing without twist. It is coated with a silane-based size and is designed for the filament winding, weaving and pultrusion processes.

SPECIFICATIONS

Type of Glass
E-Glass (E)

Type of Fiberglass
Direct Roving (DR)

Standard
Linear Mass Densities
300 to 4800
grams per metre (Tex)

Filament Diameter
14 to 24 microns

Most Common Sizes
EDR17-600-318
EDR17-735-318
EDR17-1103-318
EDR17-1200-318
EDR21-1985-318
EDR22-2206-318
EDR24-2400-318

NOMENCLATURE

EDR00-000-000

- 00: Filament Diameter (microns)
- 000: Linear Mass Density (grams per meter – tex)
- 000: Sizing Code

FEATURES

- Complete and fast wet-out
- Good mechanical properties
- Good processing properties
- Low fuzz
- Low unwinding tension

RESIN COMPATIBILITY:

- Epoxy (EP)

USES:

- FRP pipes
- Pipes —high pressure
- Storage tanks and rods
- Wind blades

TECHNICAL PARAMETERS

Linear Density (%)
ISO 1889
± 5

Moisture Content (%)
ISO 3344
≤ 0.10

Size Content (%)
ISO 1887
0.55 ± 0.15

Breakage Strength (N/tex)
ISO 3341
≥ 0.40

MECHANICAL PROPERTIES

Tensile Strength
ASTM D2343
2454 MPa

Tensile Modulus
ASTM D2343
80595 MPa

Shear Strength
ASTM D2344
69 MPa

Shear Strength Retention
(72 hr. boiling)
93%

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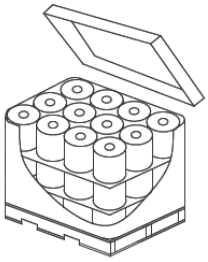
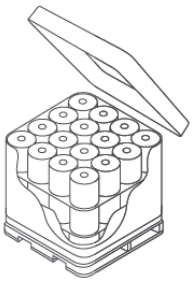
Doff



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:	270	310
Doff outside diameter	270 mm (10.6 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:				
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.