

Multi-axial Fabrics

Unidirectional

Identification

Example: EKU1150(0)/50E(TM)-600
EKU: Knitted Uniaxial fabric
1150(0)/50: 1150 g in 0° layer + 50g mat per m²
E: Resin system, “E” means EP
TM: CPIC high strength and high modulus fiber-TM glass
600: Width (mm)



Product Description

Multi-axial fiberglass fabrics are made from Rovings. The Rovings placed parallel in each layer in a designed direction could be arranged 2-6 layers, which are stitched together by light polyester threads. The general angles of the placing direction are 0, 90, ±45 degree. Unidirectional knitted fabric means main mass is in a certain direction, for example 0 degree. It is applied for vacuum infusion or winding process and mainly used for the production of wind blades, pipes, and so on. They are available for epoxy (EP), polyester (UP), and vinyl resin (VE) systems.

Product Benefits

- Good mouldability
- Stable resin speed for vacuum infusion process
- Good combination with resin and no white fiber (dry fiber) after curing

Technical Characteristics

Sizing Type	Area Weight (g/m ²)	Width (mm)		Moisture Content (%)
/	ISO 3374	ISO 5025		ISO 3344
Silane	±5%	<600	±5	≤0.20
		≥600	±10	

Sample type	Property	Unit	Fiberglass type			Test method
			E-glass	ECT-glass	TM-glass	
UD laminates made by infusion of EKU1150(0)E fabric	Tensile Strength	MPa	800~950	950~1050	1050~1200	ISO 527-5 Fiber content: 74.3%
	Tensile Modulus	GPa	39~41	41~43	44~47	

*Test results are based on the 468G rovings which are applicable to the epoxy resin system.

*These data are from the CPIC wind blades lab.

Product code	Glass type	Resin system	Total Weight (g/m ²)	Weight per layer(g/m ²)					
				0°	+45°	90°	-45°	Chopped	Stitched Yarn
EKU1150(0)	ECT/TM	EP/UP/PU	1208	1150	/	50	/	/	8
EKU1150(0)/50	ECT/TM	EP/UP/PU	1258	1150	/	50	/	50	8
EKU1200(0)	ECT/TM	EP/UP/PU	1244	1196	/	40	/	/	8
EKU1200(0)/50	ECT/TM	EP/UP/PU	1294	1196	/	40	/	50	8

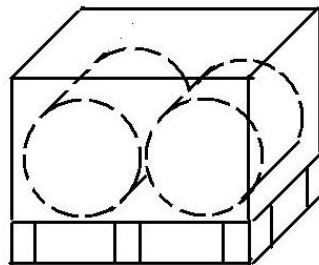
Note:

1. The arrangement and weight of each layer are designed.
2. Total weight:300-1500g/m²
3. Width: 120-2540mm

Packaging

Package	Length (m)	Roll Weight (kg/roll)	Core Inside/Outside Diameter(mm)	Number of roller per pallet	Pallet size(mm) L*W*H
EKU1150(0)/50-600	300	232	76.5/580	2	1140*700*740

Pallets illustration



Note: Products can be packed according to the customer's request.

Storage

The fabrics should be stored away from heat and moisture, and in their original packaging. The best conditions are: temperatures between 15 and 35 °C; humidity between 35 and 65 %.

If the product is not stored under these specifications, it is advisable to condition it in the workshop for at least 24 hours before use, to prevent condensation.

The pallets can be stored in 2 levels (1/1).

CPIC recommends that the material be used according to FIFO (first in, first out) method.

It is recommended the use of a spacer plate (10mm) between the pallets.



ISO 9001



ISO 14001



OHSAS 18001