

GB-FUD-0290-1270

Unidirectional Flax Fabric 290g/m²

Technical Product Data Sheet

Last Update 20.09.2023



Introduction

GREENBOATS Flax Fibre Reinforcement Fabrics are developed for diverse fibre-reinforced polymer composite applications. Compatible with various resins, they are ideal for vacuum infusion, resin transfer molding (RTM), compression molding, and prepreg.

Our fabrics stand out for their high performance, ease of processing, and notably lower environmental impact compared to synthetic fibers. The flax fibers, grown in France and Belgium, aid in reducing global warming due to CO₂ sequestration during growth.

Constructed with top-quality, twist-free flax fiber rowings, these fabrics ensure optimum fiber orientation and performance. Their versatility makes them suitable for a multitude of structural and semi-structural applications across various industries, including automotive, construction, marine, sports, and consumer goods.

Specification

Specification for standard fabric (other constructions available on request):

Fabric specifications	
Style	Unidirectional
Warp yarn	Twist-Free LINCORE® Flax Roving, 520 TEX
Weft/carrier yarn	Twisted Flax Roving 44 TEX
Warp count	5,5 ends/cm
Weft count	1 pick/cm
Total weight	approx. 290g/m ²
Tolerance on weight	+/-5%
Width	1270mm
Tolerance on width	+/-2%

Fibre Properties

Average properties for flax fibres:

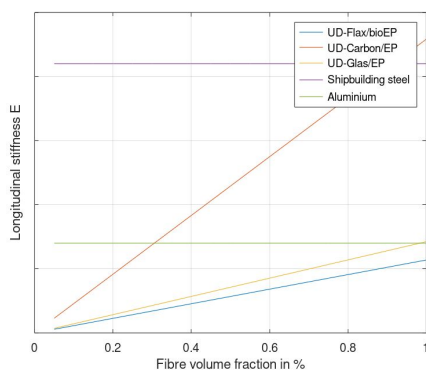
Flax fibre properties*	
Density	1.5g/cm ³
Diameter**	20 µm
Tensile modulus	50 GPa
Tensile strength	500 MPa
Strain	2%

*Flax fibre is a natural product and a certain amount of variation should be expected.

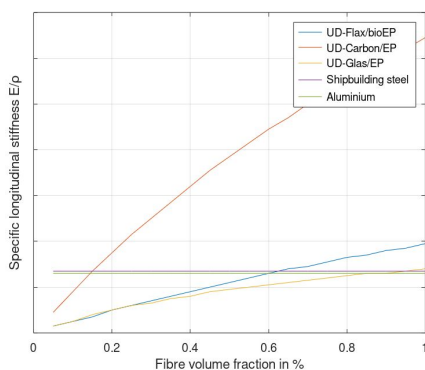
**Flax fibre has a non-circular cross-section.

Composite Properties

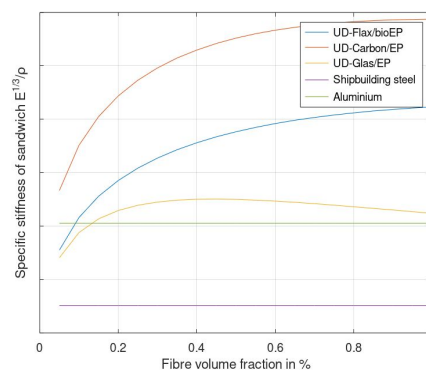
Absolute Values



As a Laminate



As a Sandwich Structure



Sizing

GREENBOATS Reinforcement fabrics are supplied unsized as standard. Sizings are possible on request.

Packaging

Standard packaging details (other packaging options are possible on request):

Packaging details	
Roll width	1270mm
Roll length	50m
Net weight	25kg
Core	Cardboard tube
Wrapping	Polythene film

Orders for multiple rolls are typically packed in a cardboard carton on a standard wooden pallet and covered with stretch wrap.

Storage

GREENBOATS Reinforcement fabrics should be stored in a cool dry place away from direct sunlight. Flax fibre can absorb moisture from the atmosphere so drying may be required before use, especially if exposed to excessive humidity.

Safety

Flax fibre is a naturally occurring, non-hazardous material, but typical precautions should be taken when handling the material including using appropriate PPE and adequate ventilation.

Disclaimer

The information provided here is believed to be accurate but should be considered indicative only. It is the responsibility of the customer to check the suitability of the product for their specific application prior to use.