

GB-FT-0360-1270

+/-90 2/2 Twill 360 g/m² Flax fabric

Technical Product Data Sheet

Last Update March 2023



Introduction

GREENBOATS Reinforcement Fibres and Fabrics are reinforced textiles based on natural flax fibers, specially developed for fibre reinforced polymer composite applications. The fabric can be used with a variety of resins for vacuum infusion, resin transfer molding (RTM), compression molding, prepreg, and more.

GREENBOATS Reinforcement Fibres and Fabrics offer high performance and ease of processing, but have a significantly lower environmental impact compared to synthetic fibers. The Fibres we are using are grown in France and Belgium. Production of Flax has a negative impact on global warming due to the CO₂ sequestration during its growth.

GREENBOATS Reinforcement Fibres and Fabrics use high quality twist-free flax fibre rowings to ensure a high level of fiber orientation and associated performance. The fabrics are suitable for a wide range of structural and semi-structural applications in industries such as automotive, construction, marine, sports and consumer goods.

Specification

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

Fabric specifications	
Style	Köper/ Twill 2x2
Warp yarn	Twist-free Flax Rowing, approx. 180g/m ²
Weft yarn	Twist-free Flax Rowing, approx. 180g/m ²
Warp count	3.5 +/- 0.5 ends/cm
Weft count	3.5 +/- 0.5 picks/cm
Total weight	approx. 360g/m ²
Tolerance on weight	+/-30g/m ²
Width	1270mm
Tolerance on width	+/-10mm

Fibre Properties

Average properties for flax fibres:

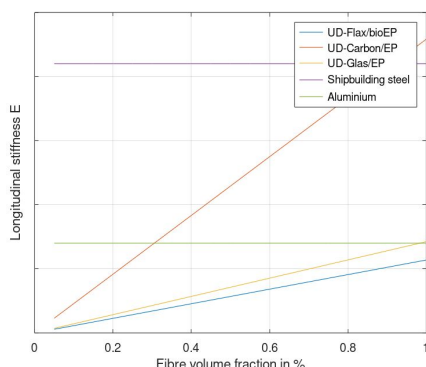
Flax fibre properties*	
Density	1.5g/cm ³
Diameter**	20 µm
Tensile modulus	50 GPa
Tensile strength	500 MPa
Strain	2%

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

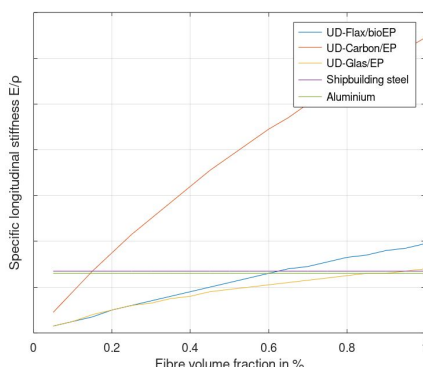
**Flax fibre has a non-circular cross-section.

Composite Properties

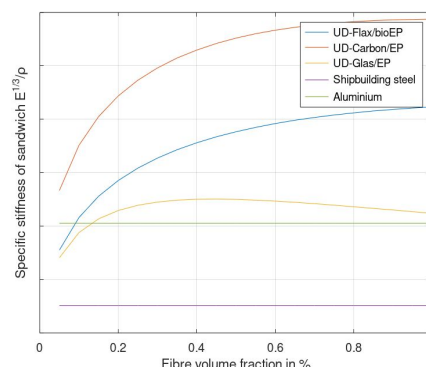
Absolute Values



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.