Flax & Hemp Solutions
Technical datasheets 2018

NAME OF THE COMPANY : .....

Technical datasheet - Roving / yarn

NAME OR REFERENCE : .....

Composition of the roving/yarn

	Type	Fibre length	Mass fraction in roving/yarn
Primary reinforcing fibre	☐ Flax ☐ Hemp	☐ 10-20 cm ☐ > 20 cm	/
☐ Secondary reinforcing fibre*	☐ Flax ☐ Hemp	☐ 10-20 cm ☐ > 20 cm	.....
☐ Other fibre*	..... Brand name:	/	.....

* Only in case of special commingled roving or yarn, or in other special combined yarns

Description of the roving/yarn

Property	Unit	Standard	Value
Linear density*	Tex (g/km)	ISO 1973	..... ± .....
Torsion	Twists/m	ISO 17202	..... ± .....
Breaking load roving/yarn	cN/tex	ISO 3341	..... ± .....
Standard bobbin length	m	/	.....
Standard bobbin mass	kg	/	.....
Specification of the bobbins	/	/	☐ Conic ☐ Cylindric

*A glass roving of 100 tex has a specific tex (mean tex/ mean density) of 39 cm^3/km, while a flax roving of 100 tex has a specific tex of 69 cm^3/km

Footnote: Density of flax and hemp fixed at 1,45 g/cm^3. More details can be found in the CELC guideline.

Mechanical properties of impregnated bundle in a composite

Name of thermoset matrix*: .....

*Matrix properties can be found on the datasheet from the manufacturer given in section «additional information".

Mechanical properties of impregnated bundle in a composite	Value
Actual V_f in impregnated roving/yarn*	..... ± .....
E_1 :Tensile modulus (Gpa) between 0 and 0,1% strain	..... ± .....
E_2 :Tensile modulus (GPa) between 0,3 and 0,5% strain	..... ± .....
Tensile strength (MPa)	..... ± .....
Failure strain (%)	..... ± .....

Notes:

- More details on the calculation of E_1 and E_2 as well as of the calculation of the fibre volume fraction can be found in the CELC guideline.
- This test method is based on ISO 10618, but adapted for natural fibres, see guideline for Impregnated Fibre Bundle Test - IFBT from CELC
- Impregnated bundle tested in longitudinal (0 deg) direction

* More details on the calculation of the fibre volume fraction can be found in the CELC guideline.

Mechanical properties of "dry" Roving /yarn (Back - Calculated)	Value
E_{f1} :Tensile modulus (Gpa) between 0 and 0,1% strain	..... ± .....
E_{f2} :Tensile modulus (GPa) between 0,3 and 0,5% strain	..... ± .....
Tensile strength (MPa)	..... ± .....

Note:

- More details on the calculation of the back-calculated roving/yarn properties (E_{f1} & E_{f2}) can be found in the CELC guideline.

Additional information

Add datasheet of the thermoset matrix used for composite production (mandatory)

Certification

European Flax® certified ☐ Yes ☐ No

Other: .....

Additives

☐ No additives

Appearance: ☐ Powder ☐ Other, specify: .....

Type & brandname: .....

Purpose of additive*: .....
*For example: odour or matrix material

Mass fraction in roving/yarn: .....

Treatment

Treament: ☐ Yes ☐ No

Purpose(s) of treatment:

Compatibilised for use with: .....

Other: .....

Sizing: ☐ Yes ☐ No

Purpose(s) sizing:

.....

.....

Recommended storage and use conditions

.....

.....

Suggestions for additional information

Unique properties: life cycle analysis and vibrational damping properties
Fatigue- and impact properties
Sales aspects

Gabarit de fiche élaboré en 2018
par la Confédération Européenne
du Lin et du Chanvre