



ELG Carbon Fibre Ltd.
RECYCLED CARBON FIBRE

CARBISO™ **TM-PA** Nonwoven Mats



Carbiso™ TM-PA are nonwoven mats made from recycled carbon fibre and comingles with PA6 and PA66.

Carbiso™ TM-PA is ideally suited for press moulding and available in the following fibre ratios (by weight):

- 60% polyamide 6 / 40% recycled carbon fibre



Carbiso™ TM-PA Nonwoven Mats

Nomenclature for Carbiso™ TM-PA products

Example:

CARBISO™ TM PA6/60 SM45D- 100-1000

BRAND NAME	PRODUCT TYPE	POLYMER/ rCF %	FIBRE CLASSIFICATION	DIMENSION
CARBISO™	TM	PA/60	SM45D	100-1000
	A hybrid nonwoven mat made from recycled carbon fibres blended with thermoplastic fibres	Polyamide 6 fibres at 60% fibre weight fraction	Standard modulus fibre with a strength of 4-5Gpa, dry fibre	Areal weight of 100gsm, 1000mm width

For additional details please see ELG Technical Note 1702: Product Nomenclature

Material data of Carbiso™ TM-PA6 (40%rCF / 60% PA)

Typical properties	Units	Values
Carbon fibre content	%	40
Polyamide 6 content	%	60
Carbon fibre length	mm	40-90
Areal weight	g/sqm	100-500
Fabric weight tolerance	%	+/- 10
Roll length (200g/sqm)	m	50-150
Roll diameter (200/sqm)	mm	300-900
Roll width	mm	500-2500
Core ID	mm	76.2

* Depending on areal weight of material, roll length and diameter may vary e.g 200gsm = 50LM, 30cm dia.



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Material properties of Carbiso™ TM-PA6 (40%rCF / 60% PA)

Typical properties	Units	Values
Tensile Modulus (Weft)*	GPa	31.9
Tensile Modulus (Warp)*	GPa	18.1
Tensile strength (Weft)*	MPa	311.5
Tensile strength (Warp)*	MPa	189
ILSS (Weft)*	MPa	34
ILSS (Warp)*	MPa	30.45

*Laminates made using liquid compression moulding at 30% fibre volume fraction

The information presented in this document is provided in good faith, but no warranty is given or is to be implied regarding its accuracy or relevance to any particular application. Users must satisfy themselves regarding the suitability and safety of their use of the information and products in the application concerned.

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