



CARBISO™ CT

Carbiso™ CT IM56D-06 is a chopped, recycled carbon fibre product with its original sizing. This lower cost alternative to chopped virgin fibre enables weight saving via improved mechanical and electrical properties in engineering plastics.

This product is made from reclaimed intermediate modulus fibres, chopped to a target fibre length. These sized fibres have excellent compatibility and dispersibility with a range of matrices. Applications include: thermoplastic compounding and cement reinforcement.

NOMENCLATURE

CARBISO™ CT IM56D-06

BRAND NAME	PRODUCT TYPE	FIBRE CLASSIFICATION	DIMENSIONS
	CT	IM56D	06
CARBISO™	Chopped carbon fibres	Intermediate modulus (IM) fibre with an equivalent virgin fibre strength of 5-6 GPa D denotes sized, dry fibre	Mean fibre length of 6 mm

For additional details please refer to ELG Technical Note 1702: Product Nomenclature

TYPICAL PROPERTIES – CARBISO™ CT IM56D-06

PROPERTY	UNIT	IMPREGNATED STRAND	SINGLE FILAMENT
Tensile Strength	MPa	4633	4212
Tensile Modulus	GPa	288	252
Test Standard		ASTM D4018	ASTM D1577

HEALTH AND SAFETY *Refer to Material Safety Data Sheet*

ELG Carbon Fibre certifies that our recycled carbon fibre products are compliant with the **European Union Regulation (EC) 1907/2006** governing the Registration, Evaluation, Authorization and Restriction of Chemicals (**REACH**) and do not contain substances above 0.1% weight of a Substance of Very High Concern (**SVHC**) listed in Annex XIV. Advised precautions for safe handling are general PPE (gloves, safety goggles, mask and protective clothing).

PROCESSING GUIDELINES

Due to the moderate bulk density of this product, modifications may be needed to standard feeding equipment. Key areas for modification can include:

1. Sufficient dimensions to prevent fibre bridging in the feed hopper.
2. Modifications to the side-feeder design, specifically relating to: screw diameter, screw pitch and port dimensions.

For further details on suppliers for the above equipment and tailored processing guidelines, please contact the relevant Technical Service Engineer.

Typical mechanical properties of compound – Carbiso™ CT IM56D-06

Table 1 – Mechanical data of compounded Carbiso™ CT IM56D-06 with PA6*

PROPERTY	UNIT	CARBISO™ CT IM56D-06 WEIGHT CONTENT (WT%)			
		0	10	15	20
Tensile Modulus	GPa	3.5	11.7	14.6	17.8
Tensile Strength	MPa	90	171	192	217
Unnotched Charpy Impact Strength	kJ/m ² (5 J)	-	71	80	92

Table 2 - Mechanical data of compounded Carbiso™ CT IM56D-06 with PP*

PROPERTY	UNIT	CARBISO™ CT IM56D-06 WEIGHT CONTENT (WT%)			
		0	10	20	30
Tensile Modulus	GPa	-	10.0	15.0	16.2
Tensile Strength	MPa	37	83	102	115
Unnotched Charpy Impact Strength	kJ/m ² (5 J)	-	37	54	78

Table 3 - Mechanical data of compounded Carbiso™ CT IM56D-06 with PC*

PROPERTY	UNIT	CARBISO™ CT IM56D-06 WEIGHT CONTENT (WT%)	
		0	20
Tensile Modulus	GPa	2.2	15.3
Tensile Strength	MPa	61	161

*Compound property data are provided as an indication and should not be used for design calculations. Final injection moulded part performance will be dependent on the compound formulation and specific manufacturing process.

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