



Maezio® CF FR 1000T

170-00-001/44

Preliminary Product Description

Polycarbonate based composite tape continuous fiber reinforced

Carbon fiber reinforced tape comprising high mechanical strength, Sb, Cl and Br-free flame retardant For thermoforming applications

Property	Test Condition	Unit	Standard	Typical Value**
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Mechanical properties (23 °C, 50 % r. F.)

Tensile modulus 0°	2 mm/min	GPa	ISO 527-5	108
Tensile modulus 90°	1 mm/min	GPa	ISO 527-5	6
Tensile strength 0°	2 mm/min	MPa	ISO 527-5	1500
Tensile strength 90°	1 mm/min	MPa	ISO 527-5	25
Flexural modulus 0°	2 mm/min	GPa	ISO 14125	107
Flexural modulus 90°	2 mm/min	GPa	ISO 14125	6
Flexural strength 0°	2 mm/min	MPa	ISO 14125	900
Flexural strength 90°	2 mm/min	MPa	ISO 14125	40
Shear modulus +/-45°	2 mm/min	MPa	ISO 14129	2900
Shear strength +/-45°	2 mm/min	MPa	ISO 14129	40
Poisson's ratio 0°		-		0.35
Poisson's ratio 90°		-		0
Thickness		mm	-	0.17

Other properties (23 °C)

Density	-	g/cm³	-	1.5
Fiber volume content		vol%	internal method	44
Area weight		g/m²	-	256
RoHs compliance			-	yes

Processing conditions

Drying temperature		°C		80
Drying time (fresh air dryer / high speed dryer)		h		4

Note : Burning behaviour UL 94V for sheets made purely of this tape containing > 2 layers are class V0

Disclaimer

**Typical value

These values are typical values only. Unless explicitly agreed in written form, they do not constitute a binding material specification or warranted values. Values may be affected by the design of the mold and the processing conditions of the product. Unless specified to the contrary, the property values given have been established on standardized test specimens at room temperature.

General

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Non Medical and non Food Contact Product

This product is not designated for the manufacture of a pharmaceutical/medicinal product, medical device or of intermediate products for medical devices¹⁾. This product is also not registered for Covestro for the use in other specifically regulated applications, in particular applications requiring regulatory registration, approval or notification (e.g. including cosmetics, plant protection, food processing, food contact and others). If the intended use of the product is for the manufacture of a pharmaceutical, medical device or of intermediate products for medical devices or for other specifically regulated applications which may lead to a regulatory obligation of Covestro, Covestro must be contacted in advance to provide its agreement to sell such product for such purpose.

Nonetheless, any determination as to whether a product is appropriate for use in a pharmaceutical, medical device or intermediate products for medical devices or for the use in other specifically regulated applications, must be made solely by the purchaser of the product without relying upon any representations by Covestro, irrespective of the existence of any regulatory obligation for the registration, approval or notification.¹⁾ Please see the "Guidance on Use of Covestro Products in a Medical Application" document.

Recommended Processing and Drying Conditions

***External heating thermoforming, sheet is thermoformed under pressure inside a mold to receive a defined part.

****Internal heating thermoforming, preheat the composite sheet to forming temperature by internal heating technologies including electric heating, induction heating, steam heating, etc.

Conditions depend on parts geometry. For more details contact Covestro

<https://www.plastics.covestro.com/Library/Overview.aspx>