

WINDFORM[®] XT

CLASS OF MATERIAL: Polyamide based material

TECHNOLOGY: Selective Laser Sintering

Windform[®] XT is a composite polyamide based, carbon fibre filled material.

It's a rapid prototyping composite material of new generation, whose advanced mechanical properties make this material the excellent partner in Rapid Manufacturing or Direct Digital Manufacturing.

In the world of fast production, today, you will not find any other materials comparable to this one.

Appearance: opaque black coloured compound polyamide and carbon based material with brilliant reflexes, Windform[®] XT is characterized by stiffness and extremely high UTS, excellent surface finish, resistance to extreme wear and optimal reproduction of detail. Windform[®] XT offers an alluring, black, sparkling look, appreciable in many design applications. Windform[®] XT is particularly suited to applications which require superior mechanical properties, extremely high performance, in rapid timing.

APPLICATIONS:

Aerodynamic applications in wind tunnel, on race track and on road, functional prototypes for racing and on road applications.

The product's versatility and the technology used allow countless possibilities of utilization.

WHERE TO FIND WINDFORM[®] PRODUCTS

CRP Technology produces Windform[®] XT parts and it also ships the material throughout Europe, the USA, and Japan.

CRP Technology and its partners can offer customized service as regards time and delivery conditions, according to customer's requests anywhere in the world.

HOW TO GET WINDFORM[®] PRODUCTS

For any further information, quotations, and delivery times, please visit the official website www.windform.it or send an information request to info@crp.eu.

CRP will contact you to answer all your questions.



PROPERTIES WINDFORM [®] XT	Test Method	SI Unity	Windform [®] XT
GENERAL PROPERTIES			
Density (20° C)		g/cm ³	1,101
Colour			DARK
THERMAL PROPERTIES			
Melting Point	ASTM D 3418	°C	179,33
HDT, 1.82 Mpa	ASTM D 648	°C	175,4
Vicat 10N	ASTM D 1252	°C	178,1
MECHANICAL PROPERTIES			
Tensile Strength	UNI EN ISO 527-1(97) UNI EN ISO 527-2(97)	Mpa	77,85
Tensile Modulus	UNI EN ISO 527-1(97) UNI EN ISO 527-2(97)	Mpa	7320,8
Elongation at break	UNI EN ISO 527-1(97) UNI EN ISO 527-2(97)	%	2,6
Flexural Strength	UNI EN ISO 14125: 2000	Mpa	131,52
Flexural Modulus	UNI EN ISO 14125: 2000	Mpa	6248,5
Impact Strength - Charpy Unnotched (23°C)	ASTM D 256 - UNI EN ISO 179:1998	KJ/m ²	32,4
Impact Strength - Charpy Notched (23°C)	ASTM D 256 - UNI EN ISO 179:1998	KJ/m ²	4,73
Impact Strength - Charpy Notched -30°C	ASTM D 256 - UNI EN ISO 179:1998	KJ/m ²	4,66
SURFACE FINISH			
After SLS Process		Ra µm	6,0
After finishing		Ra µm	1,8
PROPERTIES PER DENSITY UNIT			
UTS per density unit		Mpa g/cm ³	70,71
Tensile modulus per density unit		Mpa g/cm ³	6649,2

Note: These are all indicative values, data were generated from the testing of parts produced with the Windform[®] XT materials under optimal processing conditions.

Standard Technical Details for Accuracy versus Tolerance:

For parts up to 6" (150 mm) the standard tolerance is: +/- 0.012 inch (0,3 mm)

For parts more then 6" (150 mm) the standard tolerance is: +/- 0.002 inch per inch (0.05 mm per 25 mm)