

WINDFORM[®] FX

CLASS OF MATERIAL: Polyamide based material

TECHNOLOGY: Selective Laser Sintering

Windform[®] FX is a new generation polyamide based material, whose repeatability and mechanical characteristics make it particularly suited for Additive Manufacturing applications. White coloured, Windform[®] FX is characterized by: exceptional resistance and resilience to repeated bending and torsion applications; excellent impact resistance; consistency and behaviour similar to polypropylene and ABS injection moulded parts. Windform[®] FX is perfect for building accurate, reliable and long lasting prototypes; no further treatments are needed. The powder also benefits from extended recycling and lower refresh rates.

APPLICATIONS:

Flexible components, functional parts with living hinges or clip fittings. In addition, ducts of a complex shape, with thin walls, particularly suited for aerospace and motorsport, dashboards and grids, fenders, fans and connectors. These applications are given only as an example: the product versatility, combined with the technology used can assure users of infinite possibilities.

WHERE TO FIND

WINDFORM[®] PRODUCTS

CRP Technology produces Windform[®] FX particulars and offers a 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 on product availability, request quotes or check delivery times, please visit www.windform.eu or send an inquiry to info@crp.eu. CRP Technology customer service will contact you to answer all questions.



FROM AMONGST
THE STRONGEST COMES
THE MOST FLEXIBLE

PROPERTIES WINDFORM [®] FX	Test Method	SI Unity	Windform [®] FX
GENERAL PROPERTIES			
Density (20° C)		g/cm ³	1,027
Colour			WHITE
THERMAL PROPERTIES			
Melting Point	ASTM D 3418	°C	190,70
HDT, 1.82 Mpa	ASTM D 648	°C	47,10
Vicat 10N	ASTM D 1252	°C	186,70
MECHANICAL PROPERTIES			
Tensile Strength	UNI EN ISO 527-1(97) UNI EN ISO 527-2(97)	Mpa	48,96
Tensile Modulus	UNI EN ISO 527-1(97) UNI EN ISO 527-2(97)	Mpa	1357,00
Elongation at break	UNI EN ISO 527-1(97) UNI EN ISO 527-2(97)	%	43,90
Flexural Strength	UNI EN ISO 14125: 2000	Mpa	45,00
Flexural Modulus	UNI EN ISO 14125: 2000	Mpa	952,20
Impact Strength Unnotched (Charpy 23°C)	UNI EN ISO 179-1:2002/ 1eU	KJ/m ²	31,72
Impact Strength Notched (Charpy 23°C)	UNI EN ISO 179-1:2002/ 1eB	KJ/m ²	3,25
SURFACE FINISH			
After SLS Process		Ra µm	6
After finishing		Ra µm	2
PROPERTIES PER DENSITY UNIT			
UTS per Density Unit		Mpa/(g/cm ³)	47,67
Tensile Modulus per Density Unit		Mpa/(g/cm ³)	1321,32
ELECTRICAL PROPERTIES			
Resistivity, Volume	ASTM D257	ohm	2,3x10 ¹⁴
Resistivity, Surface	ASTM D257	ohm*cm	0,9x10 ¹⁴

Note: These are all indicative values, data were generated from the testing of parts produced with the Windform[®] FX material 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 than 6" (150 mm) the standard tolerance is: +/- 0.002 inch per inch (0.05 mm per 25mm)