WINDFORM® FX

Polyamide

CRP Technology s.r.l.

Message:

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.
Surface Finish:
After SLS Process 6 Ra µm
After finishing 2 Ra µm

General Information			
Features	Good Flexibility Good Wear Resistance High Impact Resistance Resilient		
Uses	Aerospace Applications Automotive Applications Fittings Living Hinges Thin-walled Parts		
Appearance	White		
Forms	Powder		
Processing Method	3D Printing, Laser Sintering/Melting		
Physical	**Nominal Value**	**Unit**	
Density (20°C)	1.03	g/cm³	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1360	MPa	ISO 527-2
Tensile Stress	49.0	MPa	ISO 527-2
Tensile Strain (Break)	44	%	ISO 527-2
Flexural Modulus	952	MPa	ISO 14125
Flexural Stress	45.0	MPa	ISO 14125
Tensile Modulus - per density unit	1320	MPa/g/cm³	
Ultimate Tensile Strength - per density unit	47.7	MPa/g/cm³	
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	3.3	kJ/m²	ISO 179/1eB

Charpy Unnotched Impact Strength (23°C)	32	kJ/m^2	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	47.1	°C	ASTM D648
Vicat Softening Temperature	187	°C	ASTM D1252 [1]
Melting Temperature	191	°C	ASTM D3418
NOTE			
1.	Loading 1 (10 N)		

Recommended distributors for this material

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