

WINDFORM[®] GF

CLASS OF MATERIAL: Polyamide based material

TECHNOLOGY: Selective Laser Sintering

Windform[®] GF is a light grey coloured composite polyamide based material, with added Aluminium and Glass, with improved heat deflection temperature (HDT) and superior stiffness, excellent surface finish, wear resistance and first-rate fine feature detail reproduction. Windform[®] GF offers an attractive, metallic look, appreciable in many applications, such as wind tunnel, design and functional applications. Windform[®] GF absorbs slightly less liquid compared to the other Windform[®] products and it is particularly suitable for applications which require a superior surface finish.

APPLICATIONS:

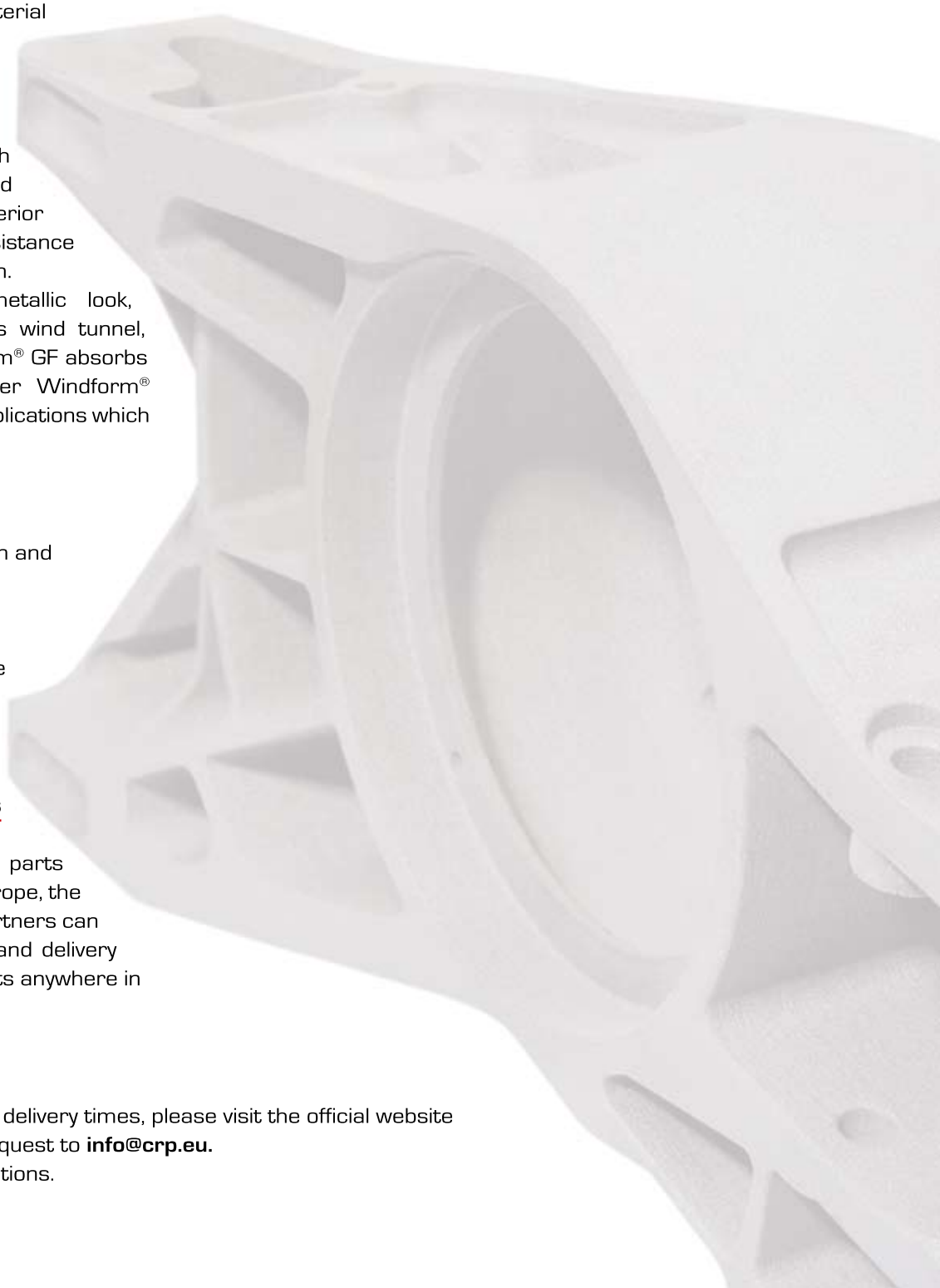
Functional parts, intake manifolds (aspiration and cooling ducts, air intake), hydraulic ducts (fluid/flowing temperature up to 125°C), fuel systems and household appliances. These uses which CRP has indicated are only an example. The product's versatility and the technology used allow countless possibilities of utilization.

WHERE TO FIND WINDFORM[®] PRODUCTS

CRP Technology produces Windform[®] GF 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® GF	Test Method	SI Unity	Windform® GF
GENERAL PROPERTIES			
Density (20° C)		g/cm3	1,5
Colour			ALUMINIUM
THERMAL PROPERTIES			
Melting Point	ASTM D 3418	°C	180
HDT, 1.82 Mpa	ASTM D 648	°C	125
Vicat 10N	ASTM D 1252	°C	175,7
MECHANICAL PROPERTIES			
Tensile Strength	UNI EN ISO 527-1(97) UNI EN ISO 527-2(97)	Mpa	47,646
Tensile Modulus	UNI EN ISO 527-1(97) UNI EN ISO 527-2(97)	Mpa	4412,7
Elongation at break	UNI EN ISO 527-1(97) UNI EN ISO 527-2(97)	%	2,5
Flexural Strength	UNI EN ISO 14125: 2000	Mpa	81,73
Flexural Modulus	UNI EN ISO 14125: 2000	Mpa	3355,2
Impact Strength - Charpy Unnotched (23°C)	ASTM D 256 - UNI EN ISO 179:1998	KJ/m2	31,86
Impact Strength - Charpy Notched (23°C)	ASTM D 256 - UNI EN ISO 179:1998	KJ/m2	2,95
Impact Strength - Charpy Notched -30°C	ASTM D 256 - UNI EN ISO 179:1998	KJ/m2	3,92
SURFACE FINISH			
After SLS Process		Ra µm	6,0
After finishing		Ra µm	1,8
ELECTRICAL PROPERTIES			
Resistivity, Volume	ASTM D257-93	ohm x cm	0,4E+16
Resistivity, Surface	ASTM D257-93	ohm x cm	7,5E+15

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

Standards 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 25mm)