

LASER SINTERING

Manufacturing process

Polyamide particles are hardened by a CO2 laser. The part is produced by adding successive layers of 0,1 or 0,15mm. The substance can be charged with fibreglass + aluminium or carbon.

The objective :

To verify the functionality and dimensions of the product for mechanical, thermal and aerodynamic tests.

Our strong points :

Painted finish and metallic preparation. Epoxy impregnation and polishing. We also guarantee the assembly of your subsets.

Delay :

Two to six working days according to size and finish.



Means of production and mechanical properties

One Eosint P 360, 350 x 350 x 530 mm with DURAFORM or WINDFORM

One Sinterstation HIQ 370 x 310 x 440 mm with DURAFORM or WINDFORM or EXCELTEC.

	DURAFORM		EXCELTEC	WINDFORM
	PA	PA GF	Innov PA 2 550 GBAL (PA charge with glass fibre + aluminium)	Windform XT (PA charge with carbon)
Properties of powder				
Density at 20° C	0,97 g/cm ³	1,49 g/cm ³	1,35 g/cm ³	1,101 g/cm ³
Water absorption at 23° C	0,41 %	0,22 %	0,3 %	-
Colour	White	Amber	Aluminium	Black
Thermal properties				
Thermal of bending under load at 1,82 Mpa	86° C	110° C	116° C	175,4° C
Mechanical properties				
Tensile strength	44 Mpa	38 Mpa	33 Mpa	77,85 Mpa
Modulus of elasticity	1 600 Mpa	5 910 Mpa	2 550 Mpa	7320,8 Mpa
Elongation at break	14 %	2 %	9 %	2,6 %
Flexural modulus	1 285 Mpa	3 300 Mpa	2 150 Mpa	6 248,5 Mpa
Resistance to the chemicals	Alcaline, hydrocarbons, gasoline and solvents			

