



TAG<sup>IN</sup>3D



**TECH**Force6<sup>TM</sup>

POLYAMIDE 6 GLASS & CARBON FIBER 30%



# TECHForce6™

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## INTRODUCTION:

TECHForce 3D filament is a polyamide 6 based raw material with 20% of glass fiber and 10% of carbone fiber.

It has been developed to meet specific needs in fields such as automotive and industry. The rigidity and solidity of the prints make it possible to obtain parts with high mechanical resistance and good resistance to fatigue.

This non-abrasive, moisture-insensitive filament is equipped with 3D skin protect technology.



## Product specification:

Raw material:	Polyamide 6
Fiber:	20% glass fiber + 10% carbon fiber
Color:	Black
Size spool:	1kg
Diameter tolerance:	+/- 0.01mm
3D Skin Protect:	Yes





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## PRINTING RECOMMANDATION :

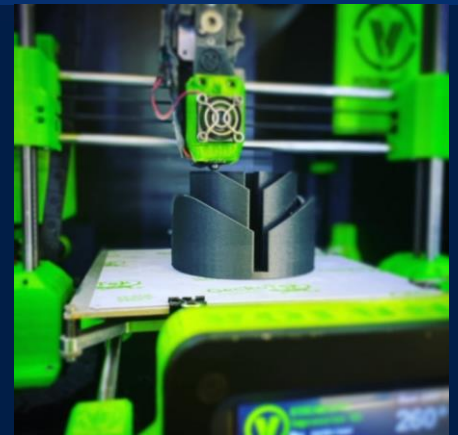
### Warning :

Due to the size the fibers, a 0.6mm nozzle is a minimum required.

Nozzle temperature : 265°C (+/- 10°C)

Bed temperature : 75°C

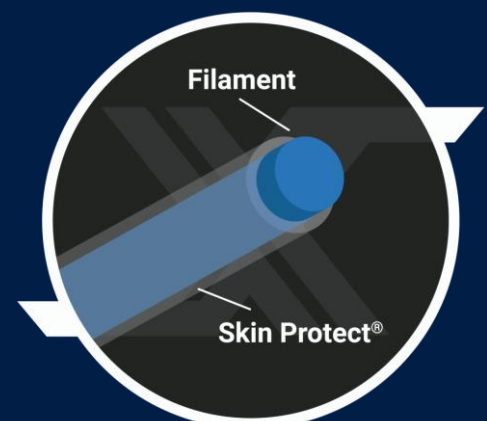
Print speed : 3600mm/min



## 3D Skin Protect™:

3D Skin Protect is a technique which consists in coextruding a thin layer of the same material (or any other compatible material), around the filament. This results in exceptional technical properties such as :

- Limitation of **the moisture absorption** : The skin acts as a barrier against humidity, and highly reduces printing problems connected with moisture contaminated **3D filaments**.
- Protect and limit risks of printer damage when abrasive fiber filled filaments are being used. The fiber free protective skin will significantly increase the life of your printers and all parts in contact with the filament.





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## Physical properties:

Physical properties	Metric	Standard
Density	1.17g/cm <sup>3</sup>	ISO 1183-A
Water absorption	0.25%	ISO 62 23°C/Sat
Glass transition	47°C	ISO 11 357
Melting temperature	195°C	ISO 11 357

## Mecanical properties\*:

Mecanical properties	Metric	Standard
Tensile modulus	4 728.94 Mpa	ISO 527
Tensile strength at yield	108.11 Mpa	ISO 527
Tensile strength at break	108.10 Mpa	ISO 527
Elongation at break	4.8 %	ISO 527
Flexural modulus	5 850 Mpa	ISO 178
Flexural strength at yield	160 Mpa	ISO 178
Flexural strength at break	156 Mpa	ISO 178

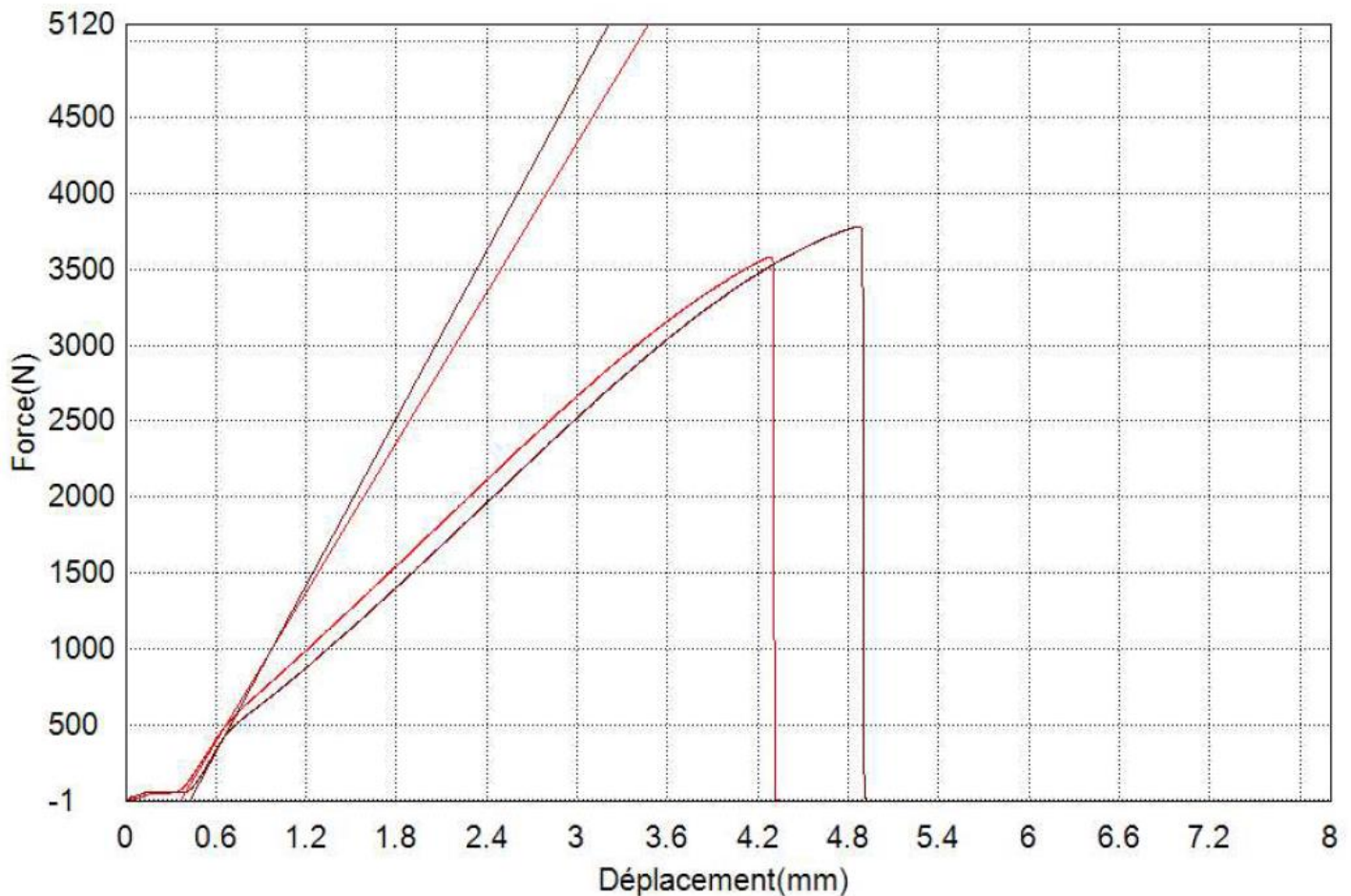




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## Mecanical properties: (Tensile strength)





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## More informations:

Web site: [www.tagin3d.com](http://www.tagin3d.com)

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