TAG IN 3D

PETGForce™

POLYETHYLENE TEREPHTHALATE GLYCOL GLASS & CARBON FIBER 30%

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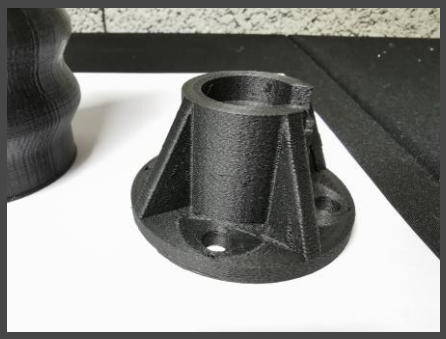
INTRODUCTION:

PET Force 3D filament is a PET based raw material with 20% of glass fiber and 10% of carbon fiber.

It has been developed to meet specific needs in fields in need of mechanical properties.

PETGForce is an easy-to-print and anti-abrasive filament thanks to 3D skin protect technology. It is mainly used for printing mechanically stressed parts.



Product specification:

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

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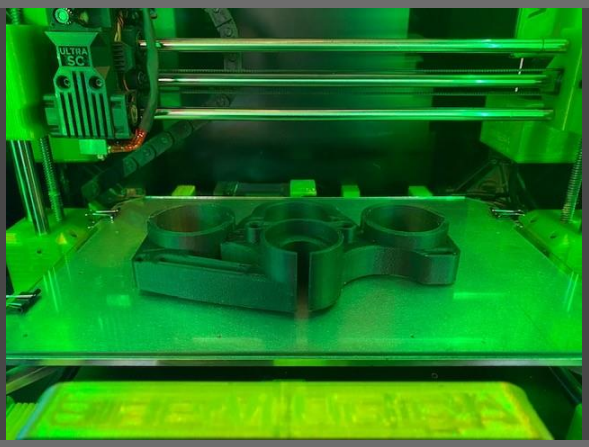
PRINTING RECOMMANDATION :

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

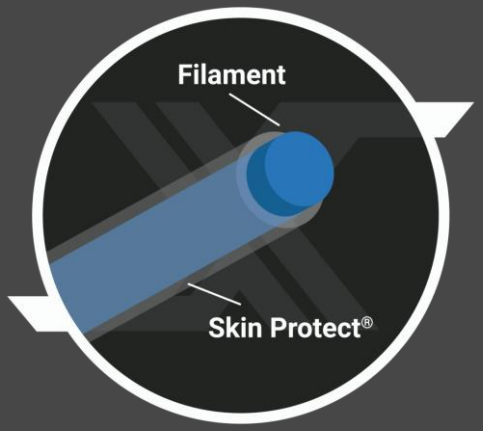
Nozzle temperature : 265°C (+/- 10°C)
Bed temperature : 75°C
Print speed : 3600mm/min



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**.
- Protects and limits the risk 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.



TECNICAL DATA SHEET
Revision date: February21, 2020

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Physical properties:

Physical properties	Metric	Standard
Density	1.26g/cm3	ISO 1183-A
Moisture absorption	0.50%	ISO 62 23°C/ 50% RH
Water absorption	0.80%	ISO 62 23°C/Sat
Glass transition	75°C	ISO 11 357
Melting temperature	250°C	ISO 11 357

Mecanical properties*:

Mecanical properties	Metric	Standard
Tensile modulus	5286.20 Mpa	ISO 527
Tensile strength at yield	102.44 Mpa	ISO 527
Tensile strength at break	102.44 Mpa	ISO 527
Elongation at break	3.9 %	ISO 527
Flexural modulus	4 200 Mpa	ISO 178
Flexural strength at yield	80 Mpa	ISO 178
Flexural strength at break	76 Mpa	ISO 178

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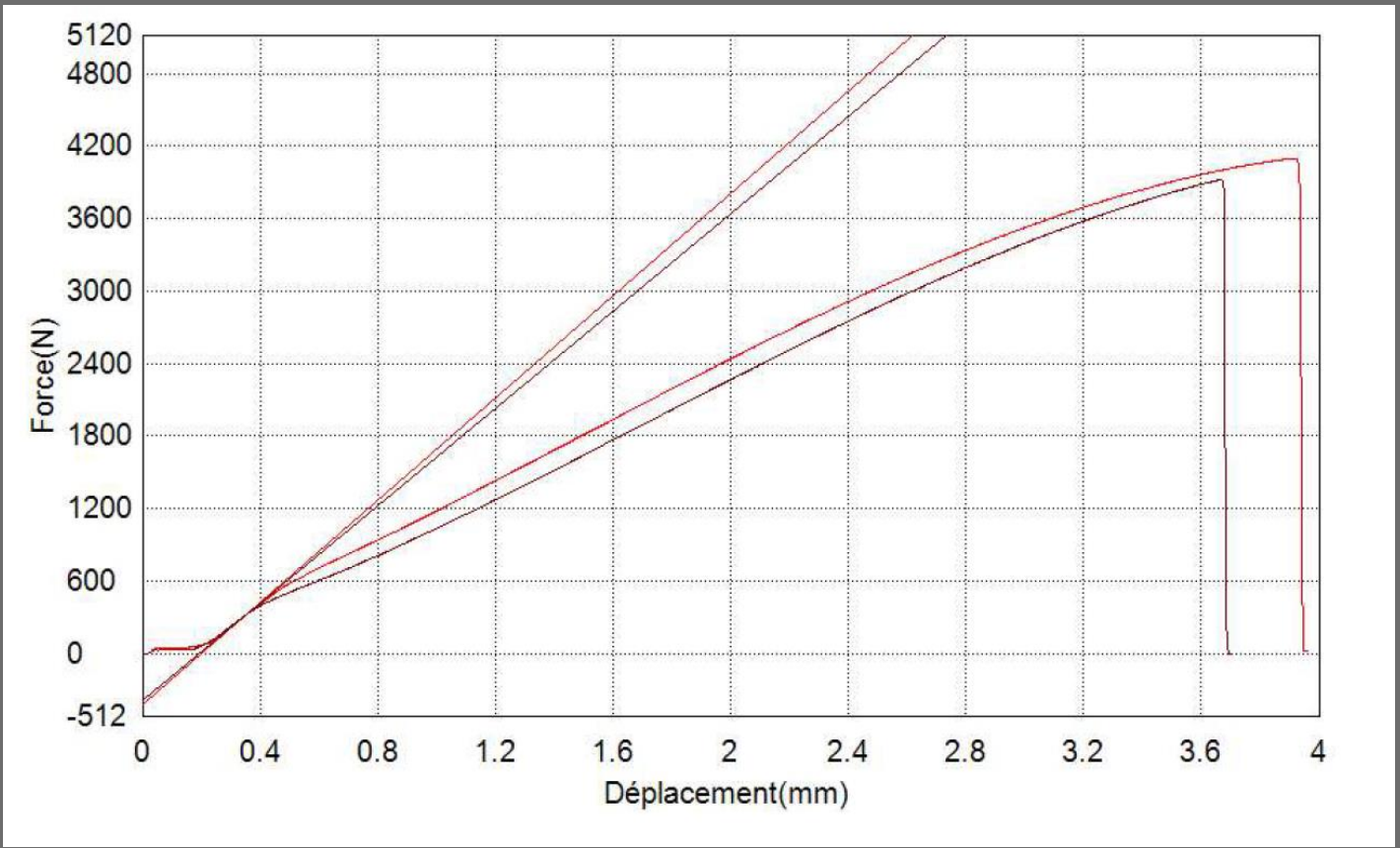
Mecanical properties:
(Tensile strength)



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More informations:

Web site: www.tagin3d.com

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PETForce is distributed by Corextrusion Group, 29 cour des Lavandes 69400, Arnas (France)
contact@corextrusion.com // +(33)4 74 68 43 96