

HDglass™ - Clear is an impressive and stunning clear 3D printer filament with an unsurpassed transparency.

HDglass™ is our new amorphous, high strength and ultra-transparent modified PETG compounded 3D printer filament range. HD stands for “Heavy Duty”, as HDglass™ has excellent properties when it comes to strength, toughness and temperature resistance for same like materials. Next to being heavy duty, HDglass™ has a very impressive transparency as it is an amorphous filament, which lets 90% of the visible light pass through its fibre and has less than 1% haze. With HDglass™ you are now able to get the closest approximate to glass-like results for 3D printed objects.

Printing with HDglass™ filament is very easy and comfortable as it has a great thermal stability, and superb first- and interlayer adhesion and does not produce any odors during 3D printing. HDglass™ is a perfectly safe material as it does not contain any hazardous substances, is Bisphenol A free, RoHS certified, REACH compliant, and is even FDA food and drink contact approved.

Because of its unique transparency and glossiness, the HDglass™ compound allows itself to be coloured in the most beautiful transparent and bright opaque colours. This same superb transparency and glossiness makes HDglass™ a perfect base material for adding thermal-, or UV light sensitive colour effects.

HDglass™ is available in a variety of vivid colours and prints best at a printing temperature range within 215°C and 240°C. Printing with HDglass™ is remarkable easy, as it is a very easy to process material and an excellent first layer adhesion can be obtained by printing at various undergrounds without needing a heated print bed. A good first layer adhesion can be obtained by printing among others on EuroCel Blue Masking Tape, a Formfutura BuildTak™ sheet, Kapton tape, or PET tape without having to use a heated print bed.

Dependent of the size of the printed object, HDglass™ can be printed at a high printing speed. As a matter of fact increasing the print speed makes your HDglass™ 3D printed object even more transparent.

With its below displayed unique set of characteristics HDglass™ is a true asset to our Formfutura product portfolio.

- Extremely transparent
- Very tough
- High strength
- FDA food and drink contact approved
- Odorless processing/printing
- Recyclable

HDglass™ has an excellent roundness and very tight diameter tolerances, which makes this filament a perfect match with all common desktop 3D printers. Printing with HDglass™ 3D printer filament will go very smoothly with basically all FFF/FDM technology based desktop 3D printers, such as:

- Ultimaker
- RepRap (Mendel, Huxley, Prusa)
- WASP
- Sharebot
- Solidoodle
- MakerBot (Replicator, Replicator 2, Replicator 2X)
- Leapfrog
- UP! Plus, Up! Mini
- AND MANY MORE....!

Product details

Our HDglass™ 3D printer filament is wrapped on a transparent ABS plastic spool which contains approximately 0.75Kg of filament. Our spool-wrapped HDglass™ filaments are packed in a silica sealed bag and come in a full colour printed cardboard box. Please see below for more details with respect to the weight and packaging of our spool-wrapped HDglass™ 3D printer filaments:

Filament Net Weight:	± 0.75 Kg
Spool Size (D x h):	200 mm x 55 mm
Spool Hub Diameter:	52 mm
Carton Box Size (L x W x H):	200 mm x 200 mm x 60 mm
Packaged weight	1.25 Kg

Recommendations for printing with HDglass™ filament

- It is important that your print bed is leveled properly and adjusted quite tight to the nozzle; This will make sure that you will get a good your first layer to your print surface.
- A good first layer adhesion can be obtained on EuroCel Blue Masking Tape, Kapton Tape, PET Tape, and Formfutura BuildTak™ sheets.
- It is important that your print surface is clean.

Material:	HDglass™ (PETG compounded)
Diameter Tolerance:	± 0.05 mm
Print Temperature Guideline:	215 - 225°C
Glass Transition Temperature:	± 70°C
Ovalidity Tolerance (max):	± 5%
Density (21.5°C):	1270 kg/m ³
Print Speed Guideline:	Comparable with PLA
Impact Strength:	7.2 KJ/m ²
Tensile Modulus:	2147.6 MPa