

## **HDglass**<sup>TM</sup>

HDglass<sup>™</sup> is an amorphous, ultra-transparent and high strength & performance modified PETG (PolyEthylene Terephthalate Glycolmodified) type of 3D printer filament. HDglass<sup>™</sup> is developed/modified to have an impressive thermal stability and by that perfect 3D printing flowing behaviour, resulting in a very easy to print 3D printer filament with a remarkable transparency and excellent properties with respect to strength, toughness and temperature resistance.

HDglass<sup>™</sup> is FDA food and drink contact approved, recyclable and does not produce any odours during 3D printing. HDglass<sup>™</sup> prints really smoothly and allows you to 3D print extremely transparent and/or high-gloss finished objects.

HDglass<sup>™</sup> is available in a variety of standard colours. All below standard colours can be delivered from stock.

Clear	RAL ±n/a*
See Through Black	RAL ±n/a*
See Through Red	RAL ±n/a*
See Through Blue	RAL ±n/a*
See Through Green	RAL ±n/a*

## \*RAL coding does not apply to transparent colours.

Any custom RAL, RGB, or PMS colour can be produced. Please contact info@formfutura.com for more information about customization possibilities.

Product details, certifications -&- compliance		
HS Code	39169090	
REACH compliant	Yes	HEACH
RoHS certified	Yes	RoHS Compliant
FDA approved	Yes	APPROVED

Formfutura filaments do not contain any hazardous, or chemical substances. All Formfutura filaments are RoHS certified and REACH compliant.

HDglass<sup>TM</sup> has excellent diameter and roundness properties established by fully automated laser control measurement throughout the entire production process.

Ø	Ø Tolerance	Roundness
1.75mm	± 0.05mm	≥ 95%
2.85mm	± 0.10mm	≥ 95%

Thermal Properties		
Print temp.	±215°C - 245°C	-
Glass transition temp.	±70°C	ASTM D648

Physical properties		
Density	1270 Kg/m <sup>3</sup>	ASTM D256
Tensile strength	50 MPa	ASTM D638
Elongation at break	120%	ASTM D638
Flexural strength	70.6 MPa	ASTM D790
Flexural modulus	2147.6 MPa	ASTM D790
Hardness (Rockwell)	Hardness (R-scale)	ASTM D785
Impact strength (Izod method 23°C)	Notched 7.2 KJ/m <sup>2</sup>	ASTM D256

Optical properties		
Transmittance	90%	ASTM D1003
Haze	< 1.0%	ASTM D1003

HDglass <sup>™</sup> unique features		
Extremely transparent	FDA food and drink contact approved	Recyclable
High gloss	Odourless processing/printing	No heat bed required
Very though	Excellent first- and interlayer adhesion	