



TECHNICAL DATA SHEET

D3D Light Diffusing PETG

Characteristic: environmental friendly , good interlayer bonding, excellent toughness

Identification of Material

Trade Name: D3D Light Diffusing PETG

GUIDELINE FOR PRINT SETTINGS

Nozzle Temperature:230~250°C

Bed temperature: 55~85°C

Active cooling fan: ON, 100%

Layer height: 0.2mm

Shell thickness ≥0.8mm

Print speed: 40~80mm/s

Settings are based on a 0.4mm Nozzle

Material Properties

Melt temperature	~200 °C	ISO 11357
Glass transition temperature	~70 °C	ISO 11357
Melt flow rate (MFR)¹	8.3 g/10min	/
Heat deflection temperature(HDT)²	70.6 °C	ISO 75
Vicat softening temperature(VST)³	78.5 °C	ISO 306
density	1.27g/cm ³	ISO 1183
Odor	Odorless	/
Solubility	Insoluble in water	/

1. test conditions: T= 240°C; m=2.16 kg.

2. test conditions:0.45MPa;120°C/h.

3. test conditions:10N; 120°C/h.

MECHANICAL PROPERTIES|TENSILE TEST**Test Method ISO 527**

All test specimens were printed using an FlashForge Guider 2s under the following conditions:

Printing temperature: 240°C

Heated bed temperature: 70°C

Print speed: 45mm/s

Shell thickness: 0.8mm

Infill under 45°



Printed Vertical Z-axis

Printed horizontal

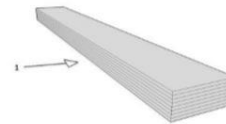
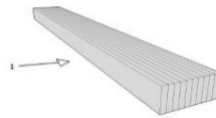
X,Y-axis

	50%	100%	50%	100%
Infill	50%	100%	50%	100%
Tensile strength (Mpa)	11.1	18.5	25.7	36.6
Force at break (Mpa)	11.1	18.5	25.7	36.6
Elongation at break (%)	3.6	4.0	10.0	10.9
Emodulus (Mpa)	316	568	405	488

MECHANICAL PROPERTIES|IMPACT TEST**Test Method ISO 179**

The same conditions as tensile test.

1→impact direction



Charpy(en)

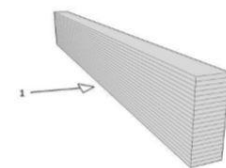
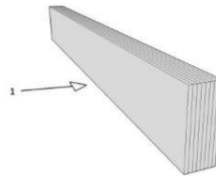
Charpy(ep)

	50%	100%	50%	100%
Infill	50%	100%	50%	100%
Impact strength (KJ/m ²)	21.1	23.4	9.0	53.0
Notch impact strength ¹ (KJ/m ²)	3.0	2.1	3.1	5.2

MECHANICAL PROPERTIES |FLEXURAL TEST**Test Method ISO 178**

The same conditions as tensile test.

1→bending direction



Normal

parallel

	50%	100%	50%	100%
Infill	50%	100%	50%	100%
Maximum force (Mpa)	50.1	62.2	61.6	65.0
Flexural modulus (Mpa)	1443	1669	1711	1747

1. notch type: type A