## Technical datasheet

# glowFill

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Colorfabb developed its own unique PLA blend for 3D printing, namely PLA/PHA. The added concentrated phosphorescent pigment will make the material glow in the dark.

Warning: Printing a lot with glowFill can cause wear to standard brass nozzles. We would recommend users to use more wear resistant nozzles such as hardened steel or ruby tipped nozzles when printing a lot of glowFill.

| TYPICAL MATERIAL PROPERTIES          |       |       |                |
|--------------------------------------|-------|-------|----------------|
| Physical properties                  | Unit  | Value | Method         |
| Density                              | g/cm3 | 1,24  | ISO 1183       |
| Modulus of elasticity                | MPa   | 2960  | ISO 527        |
| Tensile strength                     | MPa   | 61,5  | ISO 527        |
| Tensile strain at tensile strength   | %     | 5,3   | ISO 527        |
| Tensile stress at break              | MPa   | 38    | ISO 527        |
| Tensile strain at break              | %     | 10,5  | ISO 527        |
| Flexural modulus                     | MPa   | 3295  | ISO 178        |
| Flexural strain at break             | %     | NB    | ISO 178        |
| Flexural stress at 3.5% strain       | MPa   | 88,8  | ISO 178        |
| Notched impact strength (Charpy), RT | kJ/m² | 2,8   | ISO 179-1/1 eA |
| Impact strength (Charpy), RT         | kJ/m² | 30,8  | ISO 179-1/1 eU |
| Melting temperature                  | ōС    | >155  | ISO 3146-C     |

### FILAMENT SPECIFICATION

| Nominal diameter: | Diameter tolerance: | Ovality: |
|-------------------|---------------------|----------|
| 1,75 mm           | ± 0,05              | ≥ 95%    |
| 2,85 mm           | ± 0,05              | ≥ 95%    |

Netto filament weight 750 g

### **GUIDELINE FOR PRINT SETTINGS**

Advised 3D printing temperature  $195 - 220 \,^{\circ}\text{C}$ Advised bed temperature  $50 - 60 \,^{\circ}\text{C}$ 

Bed surface / modification Our PLA/PHA compounds perform well on both heated and non-heated

build platforms. For those users printing on a cold build platform we advise applying masking tape to the build area. The rough surface of the tape will provide enough adhesion for the first layer to stick and print

almost without any warping.

Active cooling fan 0 – 100 %

Advised 3D printing speed 40 – 100 mm/sec

#### Disclaimer

The product- and technical information provided in this datasheet is correct to the best of our knowledge. The information given is provided as a guidance for good use, handling and processing and is not to be considered as a quality specification. The information only relates to the specific product and the material properties.

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