

# Technical datasheet

## Compound LW-PLA

colorFabb

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Looking to light weight your giant 3D printed parts? Or want to reduce your print time by printing bigger layerheights or thicker layerwidths?

Our Compound LW-PLA uses a foaming agent to achieve lightweight parts unlike any standard FGF material. During extrusion the material will start to foam depending on the temperature, speed and layerheight which is used.

Fully foamed the material has a really nice matte surface finish. Our Compound LW-PLA is natural, meaning no added colors, so you can add your own masterbatch.

### TYPICAL MATERIAL PROPERTIES – FFF 3D Printed

| Physical properties                | Unit  | Value @     | Value @    | Method         |
|------------------------------------|-------|-------------|------------|----------------|
|                                    |       | 200°C; 100% | 250°C; 45% |                |
|                                    |       | Flow        | Flow       |                |
| Tensile modulus                    | MPa   | 3333,76     | 864,25     | ISO 527        |
| Yield strength                     | MPa   | 43,07       | N/A        | ISO 527        |
| Yield strain                       | %     | 1,68        | N/A        | ISO 527        |
| Tensile strength                   | MPa   | 43,07       | 10,83      | ISO 527        |
| Tensile strain at tensile strength | %     | 1,68        | 12,00      | ISO 527        |
| Tensile stress at break            | MPa   | 38,74       | 10,73      | ISO 527        |
| Tensile strain at break            | %     | 8,08        | 12,78      | ISO 527        |
| Charpy unnotched impact strength   | kJ/m2 | -           | 5,46       | ISO 179-1/1 eU |
| Charpy notched impact strength     | kJ/m2 | -           | 3,67       | ISO 179-1/1 eU |
| Heat Deflection Temperature (HDT)  | °C    | -           | -          | ISO 75         |

### GUIDELINES FOR PROCESSING

Processing temperature 170°C (unfoamed) – ***expected foaming activation between 190-210C, maximum foaming at temperature 210-230C.***  
Drying advice 60°C for 6-9 hours

### 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.