

# High Impact PLA

Polymer Data Sheet

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# High Impact PLA

## Polymer Data Sheet

**IDENTIFICATION**
**VALUE**

Raw Material Bio-Based PLA Compound [ > 80% produced from renewable materials ]

| PHYSICAL PROPERTIES | CONDITIONS | STANDARD | UM | VALUE |
|---------------------|------------|----------|----|-------|
|---------------------|------------|----------|----|-------|

|                 |                |          |                   |      |
|-----------------|----------------|----------|-------------------|------|
| Density         | 23° C          | ISO 1183 | g/cm <sup>3</sup> | 1,30 |
| Melt Flow Index | 190° C/2,16 Kg | ISO 1133 | g/10 min          | 30   |
| Ashes           | RT             | INTERNAL | %                 | 9    |

| THERMAL PROPERTIES | CONDITIONS | STANDARD | UM | VALUE |
|--------------------|------------|----------|----|-------|
|--------------------|------------|----------|----|-------|

|                              |           |             |    |     |
|------------------------------|-----------|-------------|----|-----|
| Melting Temperature          | 10° C/min | ISO 11357-3 | °C | 180 |
| Glass Transition Temperature | 10° C/min | ISO 11357-2 | °C | 54  |
| Heat Distortion Temperature  | 1,82 MPa  | ISO 75      | °C | 90  |

| MECHANICAL PROPERTIES | CONDITIONS | STANDARD | UM | VALUE |
|-----------------------|------------|----------|----|-------|
|-----------------------|------------|----------|----|-------|

|                           |           |             |                   |                                   |
|---------------------------|-----------|-------------|-------------------|-----------------------------------|
| Tensile Yield Strength    | 50 mm/min | ISO 527-2   | MPa               | -                                 |
| Tensile Strength at Break | 50 mm/min | ISO 527-2   | MPa               | 36                                |
| Elongation at Break       | 50 mm/min | ISO 527-2   | %                 | >6                                |
| Tensile Modulus           | 50 mm/min | ISO 527-1   | MPa               | 3200                              |
| Flexural Modulus          | 10 mm/min | ISO 178     | MPa               | 3500                              |
| Notched IZOD              | RT        | ISO 180/1A  | KJ/m <sup>2</sup> | 4 ( at 23° C )<br>3 ( at -30° C ) |
| Notched CHARPY            | RT        | ISO 179/1eA | KJ/m <sup>2</sup> | 4 ( at 23° C )<br>- ( at -30° C ) |



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### SECTION 1. PRODUCT INFORMATION & COMPLIANCE

**The Bio-Based PLA compound used for filament production has been tested by accredited laboratory according to:**

#### 1.1 PRODUCT INFORMATION

Ideal for components that require high resistance to shocks and high temperatures. Post-processing annealing is suggested. Suitable for fast sanding processes.

#### 1.2 COMPLIANCE

REACH: **compliant**

ROHS: **compliant**

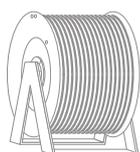
FOOD CONTACT: **non-compliant**

### SECTION 2. DISCLAIMER

#### 2.1 NOTE

Disclaimer: The information contained in this document cannot be considered as a specification. All the data reported are based on our current knowledge and are considered accurate and reliable even if not guaranteed in any way. RIGENERA di Sfrecola Cosimo Damiano assumes no responsibility for damage to persons or property due to incorrect information in this document. RIGENERA di Sfrecola Cosimo Damiano reserves the right to update this document at any time, resulting in the expiry of any previous version of this document.

**last update 03/14/2022**



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