



# TECHNICAL DATA SHEET

## PLA NX1

### DESCRIPTION

PLA NX1 is made from a sustainable biopolymer which offers good mechanical properties. The material is suitable for industrial use, rapid prototyping, architecture, food-applications, etc. The raw material is approved according to the REACH-, RoHS- and FDA-Standards.

### FEATURES

- Good impact strength
- Low warping tendency
- Biodegradable (EN 13432)

### PROPERTIES <sup>1</sup>

| TEST                        | METHOD     | UNIT              | VALUE     |
|-----------------------------|------------|-------------------|-----------|
| Tensile modulus (E-Modulus) | ASTM D882  | MPa               | 500 (3.5) |
| Tensile strength            | ASTM D882  | MPa               | 53        |
| Stress at break             | ASTM D882  | MPa               | 60        |
| Nominal elongation at break | ASTM D882  | %                 | 6         |
| Notched impact strength     | ASTM D256  | kJ/m <sup>2</sup> | 0,3       |
| VICAT A (VST)               | ASTM E2092 | °C                | 55*       |
| Melting temperature         | ISO 3146-C | °C                | 180-200   |
| MFR                         | ASTM D1238 | g/10min           | 6         |
| Shrinking                   | ASTM D955  | %                 | 0,4       |
| Density                     | ASTM D792  | g/cm <sup>3</sup> | 1.24      |

\*Temperature resistance tested at a minimum wall thickness of 4 mm.

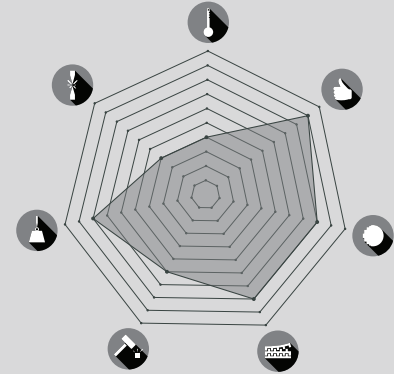
### CERTIFICATIONS & ADDITIONAL INFORMATION <sup>2</sup>



### STORAGE AND SHELF LIFE

Store in a dry room at room temperature (18-27°C / 65-80°F). Keep out of direct heat and sunlight. When stored correctly, this material has a shelf life of 2 years.

1. Additional info in our regulatory, additional information and chemical resistance data sheets.  
 2. Certifications depend on colors in final product. More info in the additional information sheet.



TEMPERATURE RESISTANCE 4

EASE OF PRINTING 9

VISUAL QUALITY 8

LAYER ADHESION 8

IMPACT RESISTANCE 6

MAXIMUM STRESS 8

ELONGATION AT BREAK 4

### PRINT SETTINGS

|          |              |
|----------|--------------|
| Nozzle   | 200-230°C    |
| Heatbed  | 20-60°C      |
| Adhesive | not required |
| Speed    | 40-60mm/s    |
| Cooling  | 30-100%      |

Recommended settings for printers with a 0.4mm Nozzle. Max. 50% layerheight. Optimal print settings may vary between different printers and also depend on environmental factors.

### NEED HELP?

If you have any question about the product and/or you are experiencing an issue, please contact us via [support@extrudr.com](mailto:support@extrudr.com)

