



**Engineering  
Plastics**

**QUANDA**

Shenzhen Quanda Plastic Co., Ltd.  
Web: www.quandaplastic.com  
Email: info@quandaplastic.com  
Tel: 0086-755-28113160



# Typical Properties Data Sheet

The Supplier of Engineering Plastics  
Rods, Sheets, Tubes, Profiles and Machining Parts

## Lasenic® Super-tough Nylon Rod Technical Property Data sheet

### ① raw materials description

|                         |   |                          |     |
|-------------------------|---|--------------------------|-----|
| <b>Standard grade:</b>  | Extrusion grade   | <b>Appearance color:</b> | --- |
| <b>Application:</b>     | It's a good material for replacing steel, iron, copper and other metals, replacing widely wear parts of machinery equipment, replacing the wear parts of copper & alloy pieces equipment, transmission structure, appliance parts, cars manufactured parts, screw prevention of mechanical parts, chemical machinery parts, chemical equipment, such as worm gears, gears, bearings, impeller, crank, instrument handles, drive shafts, valves, vane, screw, high pressure washers, screws, nuts, seals, pleurospemum, sleeve, sleeve connectors. |                          |     |
| <b>Characteristics:</b> | Good toughness, excellent wear-resistant, oil resistant, seismic, good stretching & bending strength, low water absorption, good dimensional stability, it has been used to process a variety of high-strength wear-resistant parts.  |                          |     |

### ② raw materials technical data

| Property item                           | Test conditions(status) | Test method | Test data | Unit                              |
|---|-------------------------|-------------|-----------|-----------------------------------|
| <b>I. Physical properties</b>           |                         |             |           |                                   |
| Density                                 | ---                     | ASTM D792   | 1.1       | g/cm <sup>3</sup>                 |
| Shrinkage                               | ---                     | ASTM D955   | 2~5       | %                                 |
| Water absorption                        | ---                     | ASTM D570   | <0.01     | %                                 |
| Flammability class                      | ---                     | UL94        | HB        | Class                             |
| <b>II. Mechanical properties</b>        |                         |             |           |                                   |
| Impact strength(notched)                | ---                     | ASTM D256   | 2.8       | kJ/m <sup>2</sup>                 |
| Tensile strength                        | ---                     | ASTM D638   | 50        | MPa                               |
| Compression strength                    | ---                     | ASTM D638   | 60        | MPa                               |
| Flexural strength                       | ---                     | ASTM D638   | 150       | MPa                               |
| Elongation at break                     | ---                     | ASTM D638   | 138       | %                                 |
| Hardness-Rockwell                       | ---                     | ASTM D785   | 40        | R (Scale)                         |
| Hardness-Shore D                        | ---                     | ASTM D2240  | 65        | D                                 |
| <b>III. Thermal properties</b>          |                         |             |           |                                   |
| Heat deflection temperature-HDT/A       | 1.86MPa                 | ASTM D648   | 78        | °C                                |
| Max.working temperature-short time      | ---                     | UL746B      | <120      | °C                                |
| Max.working temperature-long time       | ---                     | UL746B      | 90        | °C                                |
| Melting point                           | ---                     | ASTM D2133  | 135       | °C                                |
| Brittle temperature                     | ---                     | ASTM D746   | <-140     | °C                                |
| Thermal conductivity                    | 23°C                    | ASTM C177   | 0.42      | W/(K*m)                           |
| Coefficient of linear thermal expansion | ---                     | ASTM D696   | 12~13     | ×10 <sup>-5</sup> K <sup>-1</sup> |
| <b>IV. Electrical properties</b>        |                         |             |           |                                   |
| Dielectric constant                     | ---                     | ASTM D150   | 2.34~2.38 | 10 <sup>6</sup> Hz                |

|                                      |     |           |                   |                    |
|--------------------------------------|-----|-----------|-------------------|--------------------|
| <b>Dielectric dissipation factor</b> | --- | ASTM D150 | 0.0003            | 10 <sup>6</sup> Hz |
| <b>Dielectric strength</b>           | --- | ASTM D149 | >20               | kV/mm              |
| <b>Volume resistivity</b>            | --- | ASTM D257 | 10 <sup>15</sup>  | Ω*cm               |
| <b>Surface resistivity</b>           | --- | ASTM D257 | >10 <sup>15</sup> | Ω                  |
| <b>Arc resistant</b>                 | --- | ASTM D495 | 115               | sec                |

**NOTE:** 1 g/cm<sup>3</sup> = 1,000 kg/m<sup>3</sup>, 1 Mpa = 1 N/mm<sup>2</sup>, 1kV/mm = 1 MV/m

**STATEMENT:**

**NOTE:** The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Quanda will not provide any legally binding guarantee of certain properties, or any suitability.