

# CELSTRAN® PA6-GF60-01 AF3001 NATURAL

## CELSTRAN® Long Fibre

60% long strand glass fiber reinforced nylon 6 Natural

### Product information

|                      |             |           |
|----------------------|-------------|-----------|
| Resin Identification | PA6-LGF60   | ISO 1043  |
| Part Marking Code    | >PA6-LGF60< | ISO 11469 |

### Typical mechanical properties

|                                      |                        |              |
|--------------------------------------|------------------------|--------------|
| Tensile modulus                      | 20400 MPa              | ISO 527-1/-2 |
| Tensile stress at break, 5mm/min     | 275 MPa                | ISO 527-1/-2 |
| Tensile strain at break, 5mm/min     | 1.9 %                  | ISO 527-1/-2 |
| Flexural modulus                     | 18400 MPa              | ISO 178      |
| Flexural strength                    | 460 MPa                | ISO 178      |
| Charpy notched impact strength, 23°C | 54 kJ/m <sup>2</sup>   | ISO 179/1eA  |
| Izod notched impact strength, 23°C   | 52 kJ/m <sup>2</sup>   | ISO 180/1A   |
| Izod impact strength, -40°C          | 49.6 kJ/m <sup>2</sup> | ISO 180/1U   |
| Poisson's ratio                      | 0.33 <sup>[C]</sup>    |              |

[C]: Calculated

### Thermal properties

|   |        |             |
|---|--------|-------------|
| Temperature of deflection under load, 1.8 MPa | 215 °C | ISO 75-1/-2 |
|---|--------|-------------|

### Physical/Other properties

|         |                        |          |
|---------|------------------------|----------|
| Density | 1690 kg/m <sup>3</sup> | ISO 1183 |
|---------|------------------------|----------|

### Characteristics

|               |                    |
|---------------|--------------------|
| Processing    | Injection Moulding |
| Delivery form | Pellets            |

### Additional information

Injection molding

### Preprocessing

PA6&PA66 drying requirements: 4 hrs. @80° C.  
A dehumidifier or desiccant dryer is recommended.

### Processing

Celstran can be processed on a standard injection molding unit. A general purpose metering screw is recommended with a zone distribution of 40% feed, 40% transition, and 20% metering. A free flowing check ring assembly is recommended.

Melt Temp: 290-300°C.  
Mold Temp: 90- 100°C.

Processing Notes

### Pre-Drying

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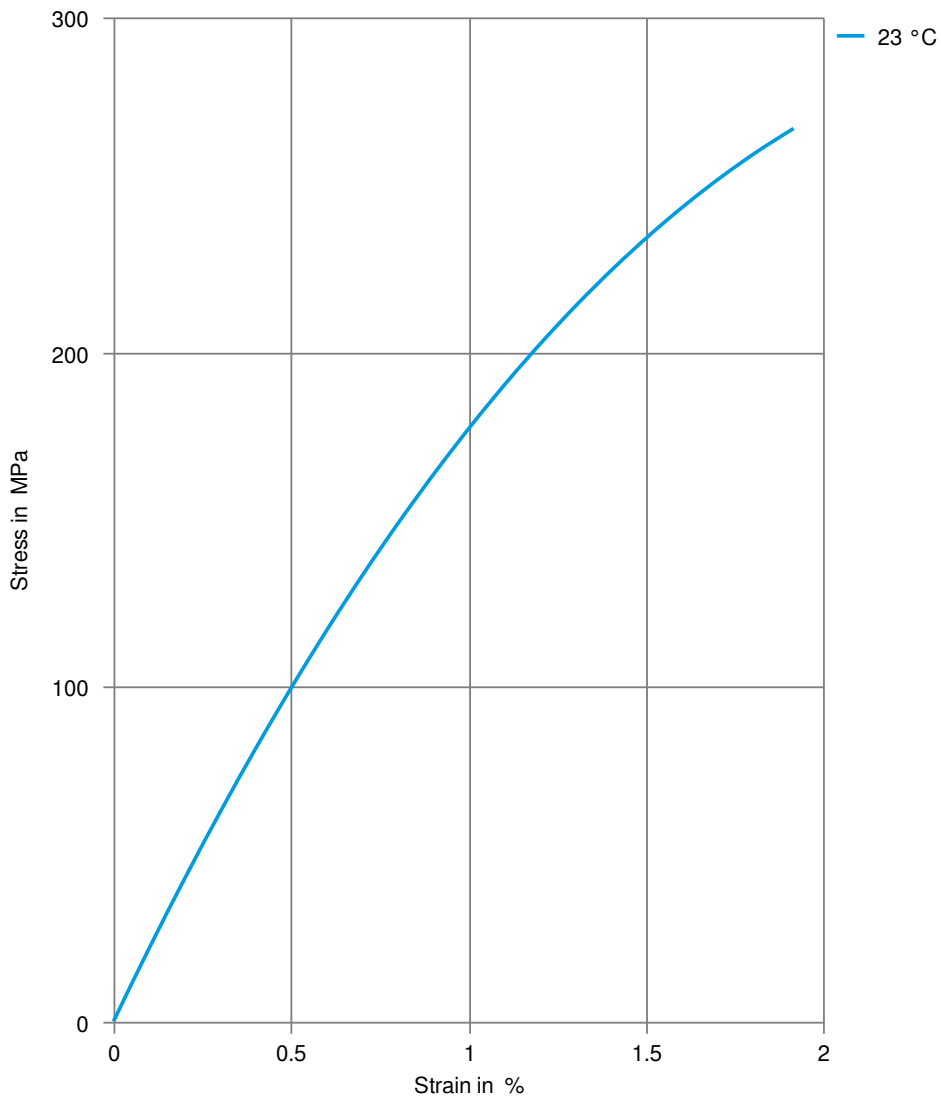
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CELSTRAN PA should in principle be predried. Because of the necessary low maximum residual moisture content the use of dry air dryers is recommended. The dew point should be  $\leq -30^{\circ}\text{C}$ . The time between drying and processing should be as short as possible.

### Storage

Note: Material can be over dried and may discolor.

### Stress-strain



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### Secant modulus-strain

