

Technical Data Sheet

# Ferro Nylon RNY20LA

Polyamide 6  
LyondellBasell Industries  
Engineering Plastics

**General**

- Filler / Reinforcement
  - Glass Fiber, 20% Filler by Weight
- Forms
  - Pellets

**Physical**

|                            | Nominal Value (English) | Nominal Value (SI)     | Test Method |
|----------------------------|-------------------------|------------------------|-------------|
| Density / Specific Gravity | 1.29                    | 1.29 g/cm <sup>3</sup> | ASTM D792   |

**Mechanical**

|                            | Nominal Value (English) | Nominal Value (SI) | Test Method |
|----------------------------|-------------------------|--------------------|-------------|
| Tensile Strength (Yield)   | 18000 psi               | 124 MPa            | ASTM D638   |
| Tensile Elongation (Break) | 3.0 %                   | 3.0 %              | ASTM D638   |
| Flexural Modulus           | 800000 psi              | 5520 MPa           | ASTM D790   |
| Flexural Strength (Yield)  | 28000 psi               | 193 MPa            | ASTM D790   |

**Impact**

|                                 | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---------------------------------|-------------------------|--------------------|-------------|
| Notched Izod Impact             |                         |                    | ASTM D256   |
| 73°F (23°C), 0.125 In (3.18 Mm) | 1.4 ft·lb/in            | 75 J/m             |             |
| Unnotched Izod Impact           |                         |                    | ASTM D4812  |
| 73°F (23°C), 0.120 In (3.05 Mm) | 14 ft·lb/in             | 750 J/m            |             |
| Gardner Impact                  | 10.0 in·lb              | 1.13 J             | ASTM D3029  |

**Hardness**

|                              | Nominal Value (English) | Nominal Value (SI) | Test Method |
|------------------------------|-------------------------|--------------------|-------------|
| Durometer Hardness (Shore D) | 86                      | 86                 | ASTM D2240  |

**Thermal**

|                                   | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------------|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load |                         |                    | ASTM D648   |
| 66 Psi (0.45 Mpa), Unannealed     | 415 °F                  | 213 °C             |             |
| 264 Psi (1.8 Mpa), Unannealed     | 400 °F                  | 204 °C             |             |

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| Injection              | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Suggested Max Moisture | 0.10 %                  | 0.10 %             |
| Rear Temperature       | 510 to 530 °F           | 266 to 277 °C      |
| Middle Temperature     | 510 to 530 °F           | 266 to 277 °C      |
| Front Temperature      | 510 to 530 °F           | 266 to 277 °C      |
| Nozzle Temperature     | 500 to 540 °F           | 260 to 282 °C      |
| Mold Temperature       | 150 to 180 °F           | 66 to 82 °C        |
| Injection Pressure     | 500 to 1500 psi         | 3.45 to 10.3 MPa   |
| Back Pressure          | 50.0 to 100 psi         | 0.345 to 0.689 MPa |

**Notes**

These are typical property values not to be construed as specification limits.