

## Technical Data Sheet

**Ferro Pp LPP40BN21BK**

Polypropylene  
LyondellBasell Industries  
Engineering Plastics

**General**

|                        |                                           |                             |                        |
|------------------------|-------------------------------------------|-----------------------------|------------------------|
| Material Status        | • Commercial: Active                      |                             |                        |
| Availability           | • Latin America                           | • North America             |                        |
| Filler / Reinforcement | • Calcium Carbonate, 40% Filler by Weight |                             |                        |
| Additive               | • Impact Modifier                         |                             |                        |
| Features               | • General Purpose                         | • Impact Modified           |                        |
|                        | • Good Impact Resistance                  | • UV Resistant              |                        |
| Uses                   | • Handles                                 | • Lawn and Garden Equipment | • Protective Coverings |
| Appearance             | • Black                                   |                             |                        |
| Forms                  | • Pellets                                 |                             |                        |
| Processing Method      | • Injection Molding                       |                             |                        |

| Physical                                  | Nominal Value (English) | Nominal Value (SI)     | Test Method |
|-------------------------------------------|-------------------------|------------------------|-------------|
| Density / Specific Gravity                | 1.24                    | 1.24 g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 17 g/10 min             | 17 g/10 min            | ASTM D1238  |

| Mechanical                              | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------------------|-------------------------|--------------------|-------------|
| Tensile Strength (73°F (23°C))          | 2300 psi                | 15.9 MPa           | ASTM D638   |
| Tensile Elongation (Break, 73°F (23°C)) | 15 %                    | 15 %               | ASTM D638   |
| Flexural Modulus                        |                         |                    | ASTM D790   |
| 1% Secant : 73°F (23°C)                 | 200000 psi              | 1380 MPa           |             |
| Tangent : 73°F (23°C)                   | 240000 psi              | 1650 MPa           |             |
| Flexural Strength (73°F (23°C))         | 4000 psi                | 27.6 MPa           | ASTM D790   |

| Impact                              | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-------------------------------------|-------------------------|--------------------|-------------|
| Notched Izod Impact (73°F (23°C))   | 1.2 ft·lb/in            | 64 J/m             | ASTM D256   |
| Unnotched Izod Impact (73°F (23°C)) | 23 ft·lb/in             | 1200 J/m           | ASTM D4812  |
| Gardner Impact (73°F (23°C))        | 165 in·lb               | 18.6 J             | ASTM D5420  |

| Hardness                     | Nominal Value (English) | Nominal Value (SI) | Test Method |
|------------------------------|-------------------------|--------------------|-------------|
| Durometer Hardness (Shore D) | 70                      | 70                 | ASTM D2240  |

| Thermal                           | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------------|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load |                         |                    | ASTM D648   |
| 66 psi (0.45 MPa), Unannealed     | 205 °F                  | 96.1 °C            |             |
| 264 psi (1.8 MPa), Unannealed     | 135 °F                  | 57.2 °C            |             |

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| Injection              | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 176 °F                  | 80 °C              |
| Drying Time            | 2.0 to 3.0 hr           | 2.0 to 3.0 hr      |
| Rear Temperature       | 395 to 400 °F           | 202 to 204 °C      |
| Middle Temperature     | 400 to 410 °F           | 204 to 210 °C      |
| Front Temperature      | 410 to 415 °F           | 210 to 213 °C      |
| Nozzle Temperature     | 415 to 425 °F           | 213 to 218 °C      |
| Processing (Melt) Temp | 428 to 500 °F           | 220 to 260 °C      |
| Mold Temperature       | 86 to 140 °F            | 30 to 60 °C        |
| 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.

### Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

### Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

### Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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