

Technical Data Sheet

## Ferro Pp TPP20AD85HB-BK

Polypropylene Homopolymer  
LyondellBasell Industries  
Engineering Plastics

| General                |                              |                   |               |
|------------------------|------------------------------|-------------------|---------------|
| Filler / Reinforcement | • Talc, 20% Filler by Weight |                   |               |
| Additive               | • Heat Stabilizer            |                   |               |
| Features               | • General Purpose            | • Heat Stabilized | • Homopolymer |
| Appearance             | • Black                      |                   |               |
| Forms                  | • Pellets                    |                   |               |
| Processing Method      | • Injection Molding          |                   |               |

| Physical                                  | Nominal Value (English) | Nominal Value (SI)     | Test Method |
|-------------------------------------------|-------------------------|------------------------|-------------|
| Density / Specific Gravity                | 1.06                    | 1.06 g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 Kg) | 4.5 g/10 min            | 4.5 g/10 min           | ASTM D1238  |

| Mechanical                              | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------------------|-------------------------|--------------------|-------------|
| Tensile Strength (73°F (23°C))          | 4800 psi                | 33.1 MPa           | ASTM D638   |
| Tensile Elongation (Break, 73°F (23°C)) | 15 %                    | 15 %               | ASTM D638   |
| Flexural Modulus                        |                         |                    | ASTM D790   |
| 1% Secant : 73°F (23°C)                 | 328000 psi              | 2260 MPa           |             |
| Tangent : 73°F (23°C)                   | 381000 psi              | 2630 MPa           |             |
| Flexural Strength (73°F (23°C))         | 7200 psi                | 49.6 MPa           | ASTM D790   |

| Impact                              | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-------------------------------------|-------------------------|--------------------|-------------|
| Notched Izod Impact (73°F (23°C))   | 0.60 ft·lb/in           | 32 J/m             | ASTM D256   |
| Unnotched Izod Impact (73°F (23°C)) | 12 ft·lb/in             | 620 J/m            | ASTM D4812  |
| Gardner Impact (73°F (23°C))        | 8.00 in·lb              | 0.904 J            | ASTM D5420  |

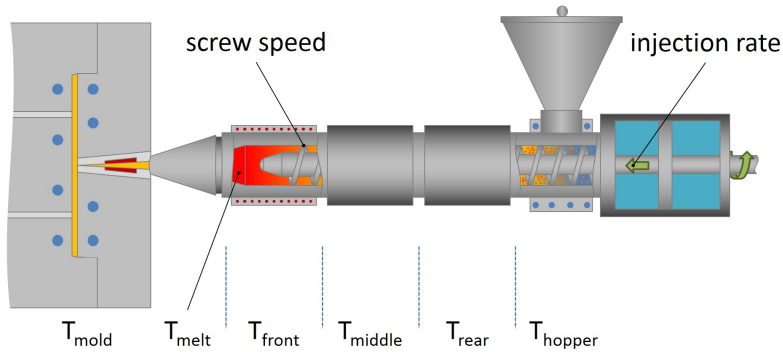
| Hardness                     | Nominal Value (English) | Nominal Value (SI) | Test Method |
|------------------------------|-------------------------|--------------------|-------------|
| Durometer Hardness (Shore D) | 74                      | 74                 | ASTM D2240  |

| Thermal                           | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------------------------|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load |                         |                    | ASTM D648   |
| 66 Psi (0.45 Mpa), Unannealed     | 255 °F                  | 124 °C             |             |
| 264 Psi (1.8 Mpa), Unannealed     | 155 °F                  | 68.3 °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        | 400 to 410 °F                   | 204 to 210 °C                 |
| Middle Temperature      | 410 to 415 °F                   | 210 to 213 °C                 |
| Front Temperature       | 415 to 420 °F                   | 213 to 216 °C                 |
| Nozzle Temperature      | 420 to 425 °F                   | 216 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           | 20.0 to 50.0 psi                | 0.138 to 0.345 MPa            |
| Screw Speed             | 100 to 150 rpm                  | 100 to 150 rpm                |
| Clamp Tonnage           | 2.0 to 3.0 tons/in <sup>2</sup> | 2.8 to 4.1 kN/cm <sup>2</sup> |
| Screw L/D Ratio         | 20.0:1.0                        | 20.0:1.0                      |
| Screw Compression Ratio | 2.0:1.0                         | 2.0:1.0                       |

### Notes

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