

# FERREX® GPP20CN05HB-WH

Polypropylene Homopolymer

Ferro Corporation

## Message:

FERREX® GPP20CN05HB-WH is a Polypropylene Homopolymer (PP Homopolymer) material filled with 22% calcium carbonate. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of FERREX® GPP20CN05HB-WH are:

High Gloss

Homopolymer

Impact Resistant

Typical applications include:

Automotive

Coating Applications

| General Information                       |  |                   |             |
|---|--|-------------------|-------------|
| Filler / Reinforcement                    | Calcium Carbonate,22% Filler by Weight |                   |             |
| Features                                  | Good Impact Resistance                 |                   |             |
|   | High Gloss                             |                   |             |
|   | Homopolymer                            |                   |             |
| Uses                                      | Automotive Exterior Parts              |                   |             |
|   | Protective Coverings                   |                   |             |
| Appearance                                | White                                  |                   |             |
| Forms                                     | Pellets                                |                   |             |
| Processing Method                         | Injection Molding                      |                   |             |
| Physical                                  | Nominal Value                          | Unit              | Test Method |
| Specific Gravity                          | 1.06                                   | g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 25                                     | g/10 min          | ASTM D1238  |
| Molding Shrinkage                         |  |                   | ASTM D955   |
| Flow                                      | 1.4                                    | %                 |             |
| Across Flow                               | 1.7                                    | %                 |             |
| Hardness                                  | Nominal Value                          | Unit              | Test Method |
| Durometer Hardness (Shore D)              | 67                                     |                   | ASTM D2240  |
| Mechanical                                | Nominal Value                          | Unit              | Test Method |
| Tensile Strength (23°C)                   | 17.2                                   | MPa               | ASTM D638   |
| Tensile Elongation (Break, 23°C)          | 90                                     | %                 | ASTM D638   |
| Flexural Modulus                          |  |                   | ASTM D790   |
| 1% Secant : 23°C                          | 979                                    | MPa               |             |
| Tangent : 23°C                            | 1100                                   | MPa               |             |
| Flexural Strength (23°C)                  | 25.5                                   | MPa               | ASTM D790   |
| Impact                                    | Nominal Value                          | Unit              | Test Method |

|                                   |                |                    |             |
|-----------------------------------|----------------|--------------------|-------------|
| Notched Izod Impact (23°C)        | 150            | J/m                | ASTM D256   |
| Unnotched Izod Impact (23°C)      | No Break       |                    | ASTM D4812  |
| Gardner Impact (23°C)             | 27.3           | J                  | ASTM D5420  |
| Thermal                           | Nominal Value  | Unit               | Test Method |
| Deflection Temperature Under Load |                |                    | ASTM D648   |
| 0.45 MPa, Unannealed              | 113            | °C                 |             |
| 1.8 MPa, Unannealed               | 54.4           | °C                 |             |
| Injection                         | Nominal Value  | Unit               |             |
| Drying Temperature                | 93.3           | °C                 |             |
| Drying Time                       | 2.0 to 3.0     | hr                 |             |
| Rear Temperature                  | 199 to 204     | °C                 |             |
| Middle Temperature                | 204 to 210     | °C                 |             |
| Front Temperature                 | 210 to 216     | °C                 |             |
| Nozzle Temperature                | 216 to 221     | °C                 |             |
| Mold Temperature                  | 46.1 to 60.0   | °C                 |             |
| Back Pressure                     | 0.138 to 0.345 | MPa                |             |
| Screw Speed                       | 100 to 150     | rpm                |             |
| Clamp Tonnage                     | 2.8 to 4.1     | kN/cm <sup>2</sup> |             |
| Screw L/D Ratio                   | 20.0:1.0       |                    |             |
| Screw Compression Ratio           | 2.0:1.0        |                    |             |

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#### Recommended distributors for this material

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