

**Durethan® BG30FN05 000000**  
**PA6-GX30 FR(40+30)**

Envalior

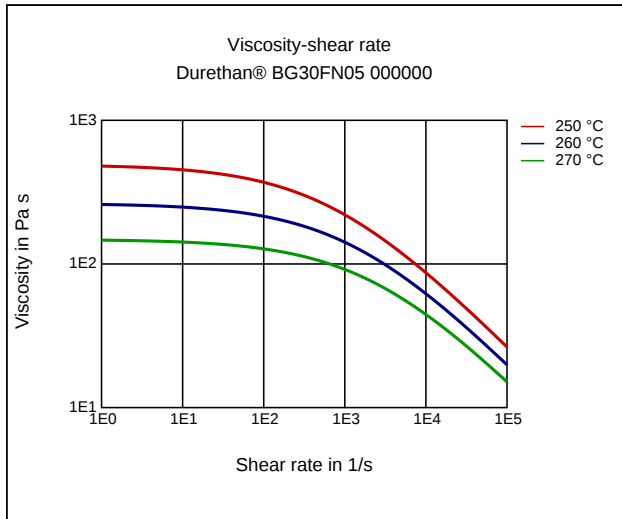
Injection Molding, 30% Glass Beads Reinforced, Flame Retardant (halogen free), Heat Stabilized, Low Warpage

ISO 1043 PA6-GX30 FR(40+30)

| Rheological properties                             | dry / cond  | Unit  | Test Standard   |
|----------------------------------------------------|-------------|-------|-----------------|
| <b>ISO Data</b>                                    |             |       |                 |
| Molding shrinkage, parallel                        | 0.8 / *     | %     | ISO 294-4, 2577 |
| Molding shrinkage, normal                          | 0.8 / *     | %     | ISO 294-4, 2577 |
| <b>Mechanical Properties</b>                       |             |       |                 |
| <b>ISO Data</b>                                    |             |       |                 |
| Tensile Modulus                                    | 5400 / 2100 | MPa   | ISO 527         |
| Stress at Break                                    | 75 / -      | MPa   | ISO 527         |
| Strain at Break                                    | 2.2 / -     | %     | ISO 527         |
| Impact Strength (Charpy), +23°C                    | 40 / 60     | kJ/m² | ISO 179/1eU     |
| Impact Strength (Charpy), -30°C                    | 38 / 25     | kJ/m² | ISO 179/1eU     |
| Notched Impact Strength (Charpy), +23°C            | - / 10      | kJ/m² | ISO 179/1eA     |
| Notched Impact Strength (Charpy), -30°C            | - / 10      | kJ/m² | ISO 179/1eA     |
| <b>Thermal Properties</b>                          |             |       |                 |
| <b>ISO Data</b>                                    |             |       |                 |
| Melting Temperature (10°C/min)                     | 222 / *     | °C    | ISO 11357-1/-3  |
| Temp. of deflection under load (1.80 MPa)          | 100 / *     | °C    | ISO 75-1/-2     |
| Temp. of deflection under load (0.45 MPa)          | 195 / *     | °C    | ISO 75-1/-2     |
| Coeff. of Linear Therm. Expansion, parallel        | 60 / *      | E-6/K | ISO 11359-1/-2  |
| Coeff. of Linear Therm. Expansion, normal          | 70 / *      | E-6/K | ISO 11359-1/-2  |
| Burning Behav. at 1.5 mm Nom. Thickn.              | V-0 / *     | class | UL 94           |
| Thickness tested                                   | 1.5 / *     | mm    | -               |
| <b>Electrical Properties</b>                       |             |       |                 |
| <b>ISO Data</b>                                    |             |       |                 |
| Comparative tracking index                         | 550 / -     | -     | IEC 60112       |
| <b>Other Properties</b>                            |             |       |                 |
| <b>ISO Data</b>                                    |             |       |                 |
| Water Absorption                                   | 6 / *       | %     | Sim. to ISO 62  |
| Humidity absorption                                | 1.8 / *     | %     | Sim. to ISO 62  |
| Density                                            | 1410 / -    | kg/m³ | ISO 1183        |
| <b>Test specimen production</b>                    |             |       |                 |
| <b>ISO Data</b>                                    |             |       |                 |
| Injection Molding, melt temperature                | 260         | °C    | ISO 294         |
| Injection Molding, mold temperature                | 80          | °C    | ISO 294         |
| <b>Processing Recommendation Injection Molding</b> |             |       |                 |
| Pre-drying - Temperature                           | 80          | °C    | -               |
| Pre-drying - Time                                  | 2 - 6       | h     | -               |
| Processing humidity                                | ≤0.07       | %     | -               |
| Melt temperature                                   | 240 - 260   | °C    | -               |
| Mold temperature                                   | 80 - 100    | °C    | -               |

## Diagrams

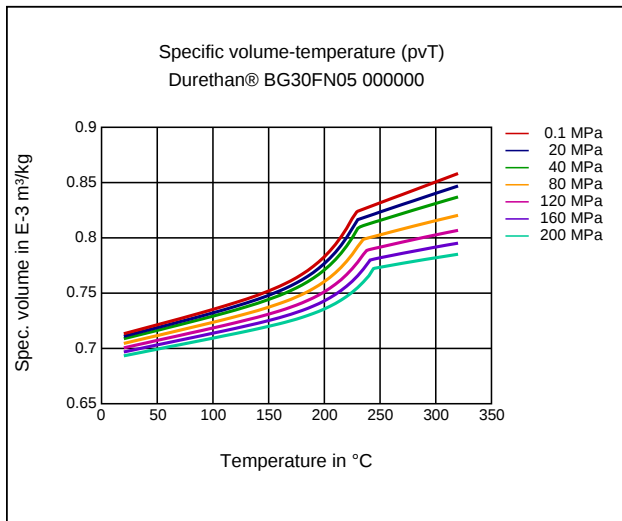
### Viscosity-shear rate



### Shearstress-shear rate



### Specific volume-temperature (pvT)



## Characteristics

### Processing

Injection Molding

### Delivery form

Pellets

### Injection Molding

#### PREPROCESSING

Residual moisture content: 0.03 - 0.07%

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

#### PROCESSING

Melt temperature (Tmin - Tmax): 240 - 260 °C

### Special Characteristics

Flame retardant, Heat aging stabilized

### Features

Low Warpage

admissible residence time at T<sub>max</sub> <5 min  
Mold temperature: 80 - 100 °C

## Disclaimer

### Liability Exclusion

These guide values are measured and provided by the product manufacturer and have been determined on standardised test specimens and can be affected by pigmentation, mould design and processing conditions. M-Base has taken the guide values from the producer's original Technical Data Sheet. **ALBIS AND M-BASE ARE THEREFORE NOT RESPONSIBLE FOR THE ACCURACY OF THE GUIDE VALUES AND CANNOT GIVE ANY WARRANTY WITH REGARD TO THEIR CORRECTNESS.**

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