

# CELANYL® B3 HH J10 GF40 BK 9005/TG

## CELANYL®

*Suitable for any technical application, provide high rigidity and toughness. Improved surface quality.*

### Product information

|                                |              |             |
|--------------------------------|--------------|-------------|
| Resin Identification           | PA6-I-GF40   | ISO 1043    |
| Part Marking Code              | >PA6-I-GF40< | ISO 11469   |
| Continuous Service Temperature | 120 °C       | IEC 60216-1 |

### Rheological properties

|                                    |             |                 |
|------------------------------------|-------------|-----------------|
| Moulding shrinkage range, parallel | 0.2 - 0.5 % | ISO 294-4, 2577 |
| Moulding shrinkage range, normal   | 0.5 - 0.8 % | ISO 294-4, 2577 |

### Typical mechanical properties

|                                      | dry/cond.                  |       |              |
|--------------------------------------|----------------------------|-------|--------------|
| Tensile modulus                      | 10800 / 6000               | MPa   | ISO 527-1/-2 |
| Tensile stress at break, 5mm/min     | 165 / 110                  | MPa   | ISO 527-1/-2 |
| Tensile strain at break, 5mm/min     | 3.5 / 8                    | %     | ISO 527-1/-2 |
| Charpy impact strength, 23°C         | >80 / -                    | kJ/m² | ISO 179/1eU  |
| Charpy notched impact strength, 23°C | 20 / 30                    | kJ/m² | ISO 179/1eA  |
| Izod notched impact strength, 23°C   | 21 / -                     | kJ/m² | ISO 180/1A   |
| Poisson's ratio                      | 0.34 / 0.35 <sup>[C]</sup> |       |              |

[C]: Calculated

### Thermal properties

|  | dry/cond. |    |                |
|--|-----------|----|----------------|
| Melting temperature, 10 °C/min                 | 225 / *   | °C | ISO 11357-1/-3 |
| Temperature of deflection under load, 1.8 MPa  | 195 / *   | °C | ISO 75-1/-2    |
| Temperature of deflection under load, 0.45 MPa | 210 / *   | °C | ISO 75-1/-2    |

### Physical/Other properties

|                          | dry/cond. |       |                |
|--------------------------|-----------|-------|----------------|
| Humidity absorption, 2mm | 1.3 / *   | %     | Sim. to ISO 62 |
| Water absorption, 2mm    | 4.6 / *   | %     | Sim. to ISO 62 |
| Density                  | 1410 / -  | kg/m³ | ISO 1183       |

### Injection

|                                 |          |
|---------------------------------|----------|
| Drying Recommended              | yes      |
| Drying Temperature              | 80 °C    |
| Drying Time, Dehumidified Dryer | 2 - 4 h  |
| Processing Moisture Content     | ≤0.15 %  |
| Melt Temperature Optimum        | 260 °C   |
| Min. melt temperature           | 240 °C   |
| Max. melt temperature           | 290 °C   |
| Screw tangential speed          | ≤0.2 m/s |
| Mold Temperature Optimum        | 80 °C    |
| Min. mould temperature          | 50 °C    |
| Max. mould temperature          | 120 °C   |

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### Characteristics

|                         |   |
|-------------------------|---|
| Processing              | Injection Moulding  |
| Delivery form           | Granules  |
| Special characteristics | High impact or impact modified, Heat stabilised or stable to heat |