

# CELANYL® B3 GF30 BK 9005/UA

## CELANYL®

General purpose grade, suitable for any technical application, medium term heat ageing resistance.

### Product information

|                                |            |             |
|--------------------------------|------------|-------------|
| Resin Identification           | PA6-GF30   | ISO 1043    |
| Part Marking Code              | >PA6-GF30< | ISO 11469   |
| Continuous Service Temperature | 100 °C     | IEC 60216-1 |

### Rheological properties

|                                    |           |                    |                 |
|------------------------------------|-----------|--------------------|-----------------|
|                                    | dry/cond. |                    |                 |
| Viscosity number                   | 140/*     | cm <sup>3</sup> /g | ISO 307, 1628   |
| Moulding shrinkage range, parallel | 0.3 - 0.6 | %                  | ISO 294-4, 2577 |
| Moulding shrinkage range, normal   | 0.6 - 0.9 | %                  | ISO 294-4, 2577 |

### Typical mechanical properties

|                                      |                       |                   |              |
|--------------------------------------|-----------------------|-------------------|--------------|
|                                      | dry/cond.             |                   |              |
| Tensile modulus                      | 9300/-                | MPa               | ISO 527-1/-2 |
| Tensile stress at break, 5mm/min     | 160/-                 | MPa               | ISO 527-1/-2 |
| Tensile strain at break, 5mm/min     | 3/-                   | %                 | ISO 527-1/-2 |
| Flexural modulus                     | 8500/-                | MPa               | ISO 178      |
| Flexural strength                    | 240/-                 | MPa               | ISO 178      |
| Charpy impact strength, 23°C         | 50/-                  | kJ/m <sup>2</sup> | ISO 179/1eU  |
| Charpy notched impact strength, 23°C | 8.5/-                 | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Izod notched impact strength, 23°C   | 10/-                  | kJ/m <sup>2</sup> | ISO 180/1A   |
| Poisson's ratio                      | 0.34/- <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  | 205/*     | °C | ISO 75-1/-2    |
| Temperature of deflection under load, 0.45 MPa | 222/*     | °C | ISO 75-1/-2    |

### Flammability

|                                      |           |       |                 |
|--------------------------------------|-----------|-------|-----------------|
|                                      | dry/cond. |       |                 |
| Burning Behav. at 1.5mm nom. thickn. | HB/*      | class | IEC 60695-11-10 |
| Burning Behav. at thickness h        | HB/*      | class | IEC 60695-11-10 |
| Thickness tested                     | 0.75/*    | mm    | IEC 60695-11-10 |
| UL recognition                       | yes/*     |       | UL 94           |

### Physical/Other properties

|                          |           |                   |                |
|--------------------------|-----------|-------------------|----------------|
|                          | dry/cond. |                   |                |
| Humidity absorption, 2mm | 1.6/*     | %                 | Sim. to ISO 62 |
| Water absorption, 2mm    | 6.3/*     | %                 | Sim. to ISO 62 |
| Density                  | 1360/-    | kg/m <sup>3</sup> | 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  |

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|                          |          |
|--------------------------|----------|
| 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   | 60 °C    |
| Max. mould temperature   | 120 °C   |

### Characteristics

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

### Automotive

|          |          |  |
|----------|----------|--|
| OEM      | STANDARD | ADDITIONAL INFORMATION                       |
| VW Group | VW 50134 | *Best Fitting Grade, Not Officially Approved |