

# CELANYL® A3 GF30 BK 9005/J

## CELANYL®

General purpose grade, suitable for any technical and aesthetical use.

### Product information

|                                |             |             |
|--------------------------------|-------------|-------------|
| Resin Identification           | PA66-GF30   | ISO 1043    |
| Part Marking Code              | >PA66-GF30< | ISO 11469   |
| Continuous Service Temperature | 115 °C      | IEC 60216-1 |

### Rheological properties

|                                    |             |                 |
|------------------------------------|-------------|-----------------|
| 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                    | 9200/-                | MPa               | ISO 527-1/-2 |
| Tensile stress at break, 5mm/min   | 170/-                 | MPa               | ISO 527-1/-2 |
| Tensile strain at break, 5mm/min   | 2.5/-                 | %                 | ISO 527-1/-2 |
| Flexural modulus                   | 8500/-                | MPa               | ISO 178      |
| Flexural strength                  | 260/-                 | MPa               | ISO 178      |
| Charpy impact strength, 23°C       | 50/-                  | kJ/m <sup>2</sup> | ISO 179/1eU  |
| Izod notched impact strength, 23°C | 9/-                   | kJ/m <sup>2</sup> | ISO 180/1A   |
| Izod impact strength, 23°C         | 55/-                  | kJ/m <sup>2</sup> | ISO 180/1U   |
| Poisson's ratio                    | 0.34/- <sup>[C]</sup> |                   |              |

[C]: Calculated

### Thermal properties

|  | dry/cond. |    |             |
|--|-----------|----|-------------|
| Temperature of deflection under load, 1.8 MPa  | 250/*     | °C | ISO 75-1/-2 |
| Temperature of deflection under load, 0.45 MPa | 260/*     | °C | ISO 75-1/-2 |

### Flammability

|                                      | dry/cond. |       |                 |
|--------------------------------------|-----------|-------|-----------------|
| Burning Behav. at 1.5mm nom. thickn. | HB/*      | class | IEC 60695-11-10 |
| Thickness tested                     | 1.6/*     | mm    | IEC 60695-11-10 |
| Burning Behav. at thickness h        | HB/*      | class | IEC 60695-11-10 |
| Thickness tested                     | 0.8/*     | 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    | 5.7/*     | %                 | Sim. to ISO 62 |
| Density                  | 1370/-    | 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        | 295 °C  |
| Min. melt temperature           | 285 °C  |

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|                          |          |
|--------------------------|----------|
| Max. melt temperature    | 305 °C   |
| Screw tangential speed   | ≤0.2 m/s |
| Mold Temperature Optimum | 100 °C   |
| Min. mould temperature   | 70 °C    |
| Max. mould temperature   | 120 °C   |

## Characteristics

|               |                    |
|---------------|--------------------|
| Processing    | Injection Moulding |
| Delivery form | Granules           |