

# CELANYL® B3 HH J05 GF15 BK 9005/E

## CELANYL®

Injection molding grade designed for Automotive parts requiring long term heat ageing resistance, medium impact and excellent surface quality.

### Product information

|                                |              |             |
|--------------------------------|--------------|-------------|
| Resin Identification           | PA6-I-GF15   | ISO 1043    |
| Part Marking Code              | >PA6-I-GF15< | ISO 11469   |
| Continuous Service Temperature | 125 °C       | IEC 60216-1 |

### Rheological properties

|                                    |             |                 |
|------------------------------------|-------------|-----------------|
| Moulding shrinkage range, parallel | 0.5 - 0.8 % | ISO 294-4, 2577 |
| Moulding shrinkage range, normal   | 0.8 - 1.1 % | ISO 294-4, 2577 |

### Typical mechanical properties

|                                       | dry/cond.              |                   |              |
|---------------------------------------|------------------------|-------------------|--------------|
| Tensile modulus                       | 4900 /-                | MPa               | ISO 527-1/-2 |
| Tensile stress at break, 5mm/min      | 100 /-                 | MPa               | ISO 527-1/-2 |
| Tensile strain at break, 5mm/min      | 4 /-                   | %                 | ISO 527-1/-2 |
| Flexural modulus                      | 4600 /-                | MPa               | ISO 178      |
| Flexural strength                     | 140 /-                 | MPa               | ISO 178      |
| Charpy impact strength, 23°C          | 70 /-                  | kJ/m <sup>2</sup> | ISO 179/1eU  |
| Charpy impact strength, -30°C         | 69 /-                  | kJ/m <sup>2</sup> | ISO 179/1eU  |
| Charpy notched impact strength, 23°C  | 12 /-                  | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Charpy notched impact strength, -30°C | 5 /-                   | kJ/m <sup>2</sup> | ISO 179/1eA  |
| Izod notched impact strength, 23°C    | 12 /-                  | kJ/m <sup>2</sup> | ISO 180/1A   |
| Poisson's ratio                       | 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  | 185 /*    | °C | ISO 75-1/-2    |
| Temperature of deflection under load, 0.45 MPa | 205 /*    | °C | ISO 75-1/-2    |

### Flammability

|                                      | dry/cond. |       |                 |
|--------------------------------------|-----------|-------|-----------------|
| Burning Behav. at 1.5mm nom. thickn. | HB /*     | class | IEC 60695-11-10 |

### Electrical properties

|                                       | dry/cond. |       |               |
|---------------------------------------|-----------|-------|---------------|
| Surface resistivity                   | * / 1E14  | Ohm   | IEC 62631-3-2 |
| Electric strength                     | 32.1 /-   | kV/mm | IEC 60243-1   |
| Comparative tracking index            | 400 /-    |       | IEC 60112     |
| Comparative tracking index, 100 drops | 350       |       | IEC 60112     |

### Physical/Other properties

|                          | dry/cond. |                   |                |
|--------------------------|-----------|-------------------|----------------|
| Humidity absorption, 2mm | 1.9 /*    | %                 | Sim. to ISO 62 |
| Water absorption, 2mm    | 6.8 /*    | %                 | Sim. to ISO 62 |
| Density                  | 1190 /-   | kg/m <sup>3</sup> | ISO 1183       |

# CELANYL® B3 HH J05 GF15 BK 9005/E

## CELANYL®

### 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   |

### Characteristics

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