Celanese
The chemistry inside innovation™

# CELANYL® A3 D10 BK 9005/R

CELANYL®

*General purpose grade, good flowability, improved flexibility.*

## Product information

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

## Rheological properties

| | dry/cond. | | |
|---|---|---|---|
| Viscosity number | 140 / * | cm³/g | ISO 307, 1628 |
| Moulding shrinkage range, parallel | 1.4 - 1.8 | % | ISO 294-4, 2577 |
| Moulding shrinkage range, normal | 1.4 - 1.8 | % | ISO 294-4, 2577 |

## Typical mechanical properties

| | dry/cond. | | |
|---|---|---|---|
| Tensile modulus | 2450 / 2300 | MPa | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 65 / 55 | MPa | ISO 527-1/-2 |
| Tensile strain at break, 50mm/min | 25 / - | % | ISO 527-1/-2 |
| Flexural modulus | 1850 / - | MPa | ISO 178 |
| Charpy impact strength, 23°C | N / N | kJ/m² | ISO 179/1eU |
| Charpy notched impact strength, 23°C | 8 / 8 | kJ/m² | ISO 179/1eA |
| Poisson's ratio | 0.444 / - | | |

## Thermal properties

| | dry/cond. | | |
|---|---|---|---|
| Melting temperature, 10°C/min | 260 / * | °C | ISO 11357-1/-3 |
| Temperature of deflection under load, 1.8 MPa | 85 / * | °C | ISO 75-1/-2 |
| Temperature of deflection under load, 0.45 MPa | 185 / * | °C | ISO 75-1/-2 |

## Flammability

| | dry/cond. | | |
|---|---|---|---|
| Burning Behav. at thickness h | HB / * | class | IEC 60695-11-10 |
| Thickness tested | 0.8 / * | mm | IEC 60695-11-10 |
| FMVSS Class | B | | ISO 3795 (FMVSS 302) |
| Burning rate, Thickness 1 mm | 18.5 | mm/min | ISO 3795 (FMVSS 302) |

## Electrical properties

| | dry/cond. | | |
|---|---|---|---|
| Comparative tracking index | 600 / - | | IEC 60112 |

## Physical/Other properties

| | dry/cond. | | |
|---|---|---|---|
| Humidity absorption, 2mm | 2.1 / * | % | Sim. to ISO 62 |
| Water absorption, 2mm | 7.5 / * | % | Sim. to ISO 62 |
| Density | 1090 / - | 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 | 290 | °C |

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| | | |
|---|---|---|
| Min. melt temperature | 280 | °C |
| Max. melt temperature | 300 | °C |
| Screw tangential speed | ≤0.3 | m/s |
| Mold Temperature Optimum | 80 | °C |
| Min. mould temperature | 50 | °C |
| Max. mould temperature | 100 | °C |

## Characteristics

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



Revised: 2025-03-05 Source: Celanese Materials Database