

CELANYL[®] A3 D10 BK 9005/R CELANYL®

General purpose grade, good flowability, improved flexibility.

| Product information | | | |
|---|---------------------------|-------------------|--------------------------------------|
| Resin Identification Part Marking Code Continuous Service Temperature | PA66-I >PA66-I< 115 | °C | ISO 1043 ISO 11469 IEC 60216-1 |
| Rheological properties | dry/cond. | | |
| Viscosity number | 140/* | cm³/g | ISO 307, 1628 |
| Moulding shrinkage range, parallel Moulding shrinkage range, normal | 1.4 - 1.8 1.4 - 1.8 | % % | ISO 294-4, 2577 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 25/ | MPa | ISO 527-1/-2 |
| Tensile strain at break, 50mm/min Flexural modulus | 25/- 1850/- | % MPa | ISO 527-1/-2 ISO 178 |
| Charpy impact strength, 23°C | N/N | kJ/m ² | 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 18.5 | mm/min | ISO 3795 (FMVSS 302) |
| Burning rate, Thickness 1 mm | 18.5 | 11111/11111 | 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 | | °C | |
| Drying Time, Dehumidified Dryer Processing Moisture Content | 2 - 4 ≤0.15 | | |
| Melt Temperature Optimum | <u>290</u> | | |
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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 |

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

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