Celanese
The chemistry inside innovation™

# CELANYL® A3 TM1 BK 9005/MM

CELANYL®

*Easy flowing, self lubricated grade for use in tribological systems.*

## Product information

| | | | |
|---|---|---|---|
| Resin Identification | (PA66+PA6) | | ISO 1043 |
| Part Marking Code | >(PA66+PA6)< | | ISO 11469 |
| Continuous Service Temperature | 85 | °C | IEC 60216-1 |

## Rheological properties

| | dry/cond. | | |
|---|---|---|---|
| Viscosity number | 140 / * | $cm^3/g$ | ISO 307, 1628 |
| Moulding shrinkage range, parallel | 0.6 - 1.2 | % | ISO 294-4, 2577 |
| Moulding shrinkage range, normal | 0.6 - 1.2 | % | ISO 294-4, 2577 |

## Typical mechanical properties

| | dry/cond. | | |
|---|---|---|---|
| Tensile modulus | 3400 / - | MPa | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 85 / - | MPa | ISO 527-1/-2 |
| Tensile strain at break, 50mm/min | 9 / - | % | ISO 527-1/-2 |
| Charpy impact strength, 23°C | >50 / - | $kJ/m^2$ | ISO 179/1eU |
| Charpy notched impact strength, 23°C | 3 / - | $kJ/m^2$ | ISO 179/1eA |
| Ball indentation hardness, H 961/30 | 145 / - | MPa | ISO 2039-1 |
| Poisson's ratio | 0.37 / -[C] | | |

[C]: Calculated

## 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 | 200 / * | °C | ISO 75-1/-2 |

## Flammability

| | | | |
|---|---|---|---|
| FMVSS Class | DNI | | ISO 3795 (FMVSS 302) |
| Burning rate, Thickness 1 mm | | mm/min | ISO 3795 (FMVSS 302) |

## Physical/Other properties

| | dry/cond. | | |
|---|---|---|---|
| Humidity absorption, 2mm | 2.6 / * | % | Sim. to ISO 62 |
| Water absorption, 2mm | 8.6 / * | % | Sim. to ISO 62 |
| Density | 1140 / - | $kg/m^3$ | 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 |
| Min. melt temperature | 280 | °C |
| Max. melt temperature | 300 | °C |
| Screw tangential speed | ≤0.4 | m/s |
| Mold Temperature Optimum | 70 | °C |



Revised: 2025-04-18 Source: Celanese Materials Database

Celanese
The chemistry inside innovation™

# CELANYL® A3 TM1 BK 9005/MM

CELANYL®

| | |
|---|---|
| Min. mould temperature | 50 °C |
| Max. mould temperature | 90 °C |

## Characteristics

| | |
|---|---|
| Processing | Injection Moulding |
| Delivery form | Granules |
| Additives | Contains Molybdenum Disulfide |
| Special characteristics | Heat stabilised or stable to heat, Low wear / Low friction, High Flow |



Revised: 2025-04-18 Source: Celanese Materials Database