Celanese
The chemistry inside innovation™

# FRIANYL® A3 RV0 BK 9005/JJ

FRIANYL®

*Designed for Electrical applications requiring self-extinguishing properties combined with easy processability and good surface quality, this grade meets the most stringent safety requirements for insulating materials.*

## Product information

| | | |
|---|---|---|
| Resin Identification | (PA66+PA6) FR(30) | ISO 1043 |
| Part Marking Code | >(PA66+PA6) FR(30)< | ISO 11469 |
| Continuous Service Temperature | 130 °C | IEC 60216-1 |

## Rheological properties

| | dry/cond. | | |
|---|---|---|---|
| Viscosity number | 140 / * | $cm^3/g$ | ISO 307, 1628 |
| Moulding shrinkage range, parallel | 1.2 - 1.7 | % | ISO 294-4, 2577 |
| Moulding shrinkage range, normal | 0.9 - 1.4 | % | ISO 294-4, 2577 |

## Typical mechanical properties

| | dry/cond. | | |
|---|---|---|---|
| Tensile modulus | 3300 / - | MPa | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 75 / - | MPa | ISO 527-1/-2 |
| Tensile strain at break, 50mm/min | 7.4 / - | % | ISO 527-1/-2 |
| Charpy notched impact strength, 23 °C | 3.3 / - | $kJ/m^2$ | ISO 179/1eA |
| Charpy notched impact strength, -30 °C | 2.5 / - | $kJ/m^2$ | ISO 179/1eA |
| 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 | 185 / * | °C | ISO 75-1/-2 |

## Flammability

| | dry/cond. | | |
|---|---|---|---|
| Burning Behav. at 1.5mm nom. thickn. | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 1.6 / * | mm | IEC 60695-11-10 |
| Burning Behav. at thickness h | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 0.4 / * | mm | IEC 60695-11-10 |

## Physical/Other properties

| | dry/cond. | | |
|---|---|---|---|
| Humidity absorption, 2mm | 2.2 / * | % | Sim. to ISO 62 |
| Water absorption, 2mm | 6.5 / * | % | Sim. to ISO 62 |
| Density | 1160 / - | $kg/m^3$ | ISO 1183 |

## Injection

| | | |
|---|---|---|
| Drying Recommended | yes | |
| Drying Temperature | 80 | °C |
| Drying Time, Dehumidified Dryer | 2 - 4 | h |
| Processing Moisture Content | ≤0.1 | % |
| Melt Temperature Optimum | 275 | °C |
| Min. melt temperature | 265 | °C |
| Max. melt temperature | 285 | °C |

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| | | |
|---|---|---|
| Screw tangential speed | ≤0.2 | m/s |
| Mold Temperature Optimum | 70 | °C |
| Min. mould temperature | 60 | °C |
| Max. mould temperature | 90 | °C |

## Characteristics

| | |
|---|---|
| Processing | Injection Moulding |
| Delivery form | Granules |
| Additives | Flame retardant |
| Special characteristics | Flame retardant |



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