# FRIANYL® A3 RV0 Z NC 1102

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 |

## Rheological properties

| | dry/cond. | | |
|---|---|---|---|
| Viscosity number | 3460 / * | in³/lb | ISO 307, 1628 |
| Molding shrinkage, parallel | 1.2 / - | % | ISO 294-4, 2577 |
| Molding shrinkage range, parallel | 1 - 1.4 | % | ISO 294-4, 2577 |
| Molding shrinkage, normal | 1.2 / - | % | ISO 294-4, 2577 |
| Molding shrinkage range, normal | 1 - 1.4 | % | ISO 294-4, 2577 |

## Typical mechanical properties

| | dry/cond. | | |
|---|---|---|---|
| Tensile modulus | 493000 / 167000 | psi | ISO 527-1/-2 |
| Tensile stress at yield, 50mm/min | 11000 / 5800 | psi | ISO 527-1/-2 |
| Tensile strain at break, 50mm/min | 6 / >50 | % | ISO 527-1/-2 |
| Charpy impact strength, 23°C | >100 / - | ftlb/in² | ISO 179/1eU |
| Charpy notched impact strength, 23°C | 1.43 / - | ftlb/in² | ISO 179/1eA |

## Thermal properties

| | dry/cond. | | |
|---|---|---|---|
| Melting temperature, 10°C/min | 500 / * | °F | ISO 11357-1/-3 |
| Temperature of deflection under load, 1.8 MPa | 158 / * | °F | ISO 75-1/-2 |
| Temperature of deflection under load, 0.45 MPa | 356 / * | °F | ISO 75-1/-2 |

## Flammability

| | dry/cond. | | |
|---|---|---|---|
| Burning Behav. at thickness h | V-0 / * | class | IEC 60695-11-10 |
| Thickness tested | 0.0157 / * | in | IEC 60695-11-10 |
| UL recognition | yes / * | | UL 94 |
| Glow Wire Flammability Index, 0.75mm | 1760 / - | °F | IEC 60695-2-12 |
| Glow Wire Flammability Index, 3.0mm | 1760 / - | °F | IEC 60695-2-12 |
| Hot Wire Ignition, 0.75mm | PLC 4 / * | s | UL 746A |
| Hot Wire Ignition, 1.5mm | PLC 3 / * | s | UL 746A |
| Hot Wire Ignition, 3mm | PLC 1 / * | s | UL 746A |
| FMVSS Class | SE | | ISO 3795 (FMVSS 302) |

## Electrical properties

| | dry/cond. | | |
|---|---|---|---|
| Volume resistivity | >1E13 / - | Ohm.m | IEC 62631-3-1 |
| Comparative tracking index | 600 / - | | IEC 60112 |

## Physical/Other properties

| | dry/cond. | | |
|---|---|---|---|
| Humidity absorption, 2mm | 2.2 / * | % | Sim. to ISO 62 |
| Water absorption, 2mm | 7.9 / * | % | Sim. to ISO 62 |
| Density | 0.0419 / - | lb/in³ | ISO 1183 |

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## Injection

| | | |
|---|---|---|
| Drying Recommended | yes | |
| Drying Temperature | 176 | °F |
| Drying Time, Dehumidified Dryer | 2 - 4 | h |
| Processing Moisture Content | ≤0.1 | % |
| Melt Temperature Optimum | 527 | °F |
| Min. melt temperature | 509 | °F |
| Max. melt temperature | 545 | °F |
| Max. screw tangential speed | ≤0.2 | m/s |
| Mold Temperature Optimum | 158 | °F |
| Min. mold temperature | 140 | °F |
| Max. mold temperature | 194 | °F |

## Automotive

| OEM | STANDARD | ADDITIONAL INFORMATION |
|---|---|---|
| VW Group | VW 50133 | *Best Fitting Grade To PA66-1-A, Not Officially Approved |

## Characteristics

| | |
|---|---|
| Processing | Injection Molding |
| Additives | Flame retardant, Non-halogenated/Red phosphorus free flame retardant |
| Special characteristics | Flame retardant, Heat stabilized or stable to heat, High Flow |



Revised: 2026-03-06 Source: Celanese Materials Database

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