FRIANYL® A3 RV0 GN 6017/W

Polyamide 66 compound, unfilled, heat resistant, based on flame retardant halogen and red phosphourous free. UL listed V0@0,25mm
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

Part Marking Code	>(PA66+PA6) FR(30)<	ISO 11469

Rheological properties

Melt volume-flow rate	210	cm^3/10min	ISO 1133
Temperature	275	°C	
Load	5	kg	
Viscosity number	140	cm^3/g	ISO 307, 1157, 1628

Typical mechanical properties

	dry/cond.		
Tensile Modulus	3500 / -	MPa	ISO 527-1/-2
Yield stress, 50mm/min	80 / -	MPa	ISO 527-1/-2
Strain at break, 50mm/min	10 / -	%	ISO 527-1/-2
Charpy impact strength, 23°C	115 / -	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	4 / -	kJ/m^2	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	260	°C	ISO 11357-1/-3

Flammability

Glow Wire Flammability Index, 3mm	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature, 0.75mm	775	°C	IEC 60695-2-13

Electrical properties

Comparative tracking index	600	IEC 60112

Other properties

Density	1160	kg/m^3	ISO 1183

Characteristics

Additives	Non-halogenated/Red phosphorous free flame retardant

Celanese
The chemistry inside innovation™

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Additional information

Injection molding	The following conditions apply to a standard injection molding process. Machine temperatures: barrel 265-290°C (PA66), 235-270°C (PA6), nozzle and hot runners up to 300°C (up to 290°C products with flame retardants). Mold temperatures: 60-80°C, (80-100°C highly reinforced grades). Back pressure: typically, 5-10 bar (hydraulic pressure). Temperatures exceeding 300°C and long residence time could lead to additives degradation and brittleness of the material. In case of gas generation in the melt, please verify moisture content and processing temperatures. Usage of regrind is possible depending on the molded part characteristics. For further details, please refer to the document 'Instructions for injection molding' or contact our technical support team.

Processing Texts

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Injection molding Preprocessing	PA materials, stocked in a moisture-proof packaging, can be processed without drying; however, it is always recommended drying the product that comes from a large package (e.g. Octabin). The moisture content suggested for the injection molding process should be lower than 0.15%, according to the grade and to the molded part characteristics. The materials containing flame retardants should have moisture content below 0.10%. Red phosphorous containing grades must always be dried below 0.08%. The drying time depends on the moisture content and the drying conditions. Typically, 4-8 hours at 80-90°C using dehumidified air (dew point of -20°C) are suitable conditions for a starting moisture content of 0.20%-0.40%.
Injection molding Postprocessing	PA materials reach their final performance with a water content of about 1.5 to 3.5% by weight, depending on the type. This percentage corresponds to the point of equilibrium between the rates of absorption and desorption of moisture. After molding, in favorable environmental conditions, a part can quickly absorbs moisture up to 0.5-1.0%, while the equilibrium will be reached during its life. A conditioning treatment can accelerate further the initial water absorption of the molded parts. Conditioning is usually carried out in hot and humid environment (for example 50°C, 100% RH), inside climatic chambers. Slight dimensional variations (increase in volume due to the water absorbed) must be considered,

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especially in unfilled grades. Post-treatments of parts may also include the annealing (60-80°C in oven, up to four hours). This procedure can be useful to relax any internal stresses.