Celanese
The chemistry inside innovation™

FRIANYL® A3 NH A V2 BT NC 1102/W

FRIANYL®

PA66 unfilled, hydrolysis resistant.
Car industry, Household appliances, Electrical devices.

Product information

Resin Identification	PA6	ISO 1043
Part Marking Code	>PA6<	ISO 11469

Rheological properties

Moulding shrinkage range, parallel	1.6 - 2	%	ISO 294-4, 2577
Moulding shrinkage range, normal	1.6 - 2	%	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	3100 / -	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	85 / -	MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	4 / -	%	ISO 527-1/-2
Tensile strain at break, 50mm/min	9 / -	%	ISO 527-1/-2
Charpy impact strength, 23°C	N / -	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	4.5 / -	kJ/m²	ISO 179/1eA
Izod notched impact strength, 23°C	4 / -	kJ/m²	ISO 180/1A
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	205 / *	°C	ISO 75-1/-2

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10
Burning Behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	3.2 / *	mm	IEC 60695-11-10

Electrical properties

	dry/cond.	
Comparative tracking index	600 / -	IEC 60112

Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	1.3 / *	%	Sim. to ISO 62
Water absorption, 2mm	8.5 / *	%	Sim. to ISO 62
Density	1140 / -	kg/m³	ISO 1183

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Injection

Drying Recommended	yes	
Drying Temperature	80	°C
Drying Time, Dehumidified Dryer	2 - 4	h
Processing Moisture Content	≤0.1	%
Melt Temperature Optimum	280	°C
Min. melt temperature	270	°C
Max. melt temperature	290	°C
Screw tangential speed	≤0.2	m/s
Mold Temperature Optimum	80	°C
Min. mould temperature	60	°C
Max. mould temperature	90	°C

Characteristics

Processing	Injection Moulding
Additives	Non-halogenated/Red phosphorous free flame retardant
Special characteristics	Flame retardant

Chemical Media Resistance

Salt solutions

- ✔ Sodium Hypochlorite solution (10% by mass), 23 °C

Symbols used:

- ✔ possibly resistant
  Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).
- ✘ not recommended - see explanation
  Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).

Revised: 2024-08-16 Source: Celanese Materials Database