

## FRIANYL® A3 GF20 V0XI

Technical DataSheet | Supplied by Celanese

FRIANYL® A3 GF20 V0XI by Celanese is a flame retardant (UL94 V-0) and halogenated Polyamide 66 (PA66) grade reinforced with 20% glass fiber. It is PBB and PBDE free. Is suitable for processing by injection molding. FRIANYL® A3 GF20 V0XI is used in terminal blocks, rotary switches and circuit breakers.

<b>Product Type</b>	PA (Polyamide, Nylon) > PA 66 (Nylon 66)
<b>Product Status</b>	COMMERCIAL
<b>Applications/ Recommended for</b>	Electrical markets > Switches Injection molding - thermoplastics
<b>Labels/Agency Rating</b>	UL94 (V-0) Flame Class Rating
<b>Key Features</b>	Filled, Glass Fiber Flame retarded Flame retarded, Halogen based

## FRIANYL® A3 GF20 V0XI Properties

Physical	Value & Unit	Test Condition	Test Method
<b>Density</b>	1.55 g/cm <sup>3</sup>	23°C	ISO 1183
<b>Linear Mold Shrinkage</b>	0.4 %	Parallel, 23°C	ISO 294-4
<b>Linear Mold Shrinkage</b>	0.8 %	Normal, 23°C	ISO 294-4
<b>Moisture Absorption</b>	0.5 %	23°C, 24 hr	ISO 62
<b>Moisture Absorption</b>	4.2 %	at Saturation	ISO 62

Mechanical	Value & Unit	Test Condition	Test Method
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<b>Impact Strength, Notched Izod</b>	7.0 kJ/m <sup>2</sup>	23°C	ISO 180/A
<b>Impact Strength, Notched Charpy</b>	6.0 kJ/m <sup>2</sup>	-30°C	ISO179/1EA
<b>Impact Strength, Notched Charpy</b>	7.0 kJ/m <sup>2</sup>	23°C	ISO179/1EA
<b>Tensile Strength, Yield</b>	110 MPa	23°C	ISO 572
<b>Tensile Modulus</b>	7500 MPa	23°C	ISO 527
<b>Tensile Strain</b>	2.5 %	at Break, 23°C	ISO 527
<b>Impact Strength, Notched Izod</b>	6.0 kJ/m <sup>2</sup>	-30°C	ISO 180-1A
<b>Impact Strength, Unnotched Charpy</b>	25 kJ/m <sup>2</sup>	23°C	ISO 179/1eU
<b>Impact Strength, Unnotched Charpy</b>	22 kJ/m <sup>2</sup>	-30°C	ISO 179/1EU

<b>Thermal</b>	Value & Unit	Test Condition	Test Method
<b>Maximum Service Temperature, Air</b>	115 °C	20000h	IEC 60216
<b>Heat Deflection Temperature (HDT)</b>	250 °C	0.45N/mm <sup>2</sup>	ISO 75
<b>Heat Deflection Temperature (HDT)</b>	235 °C	1.82N/mm <sup>2</sup>	ISO 75

<b>Electrical</b>	Value & Unit	Test Condition	Test Method
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<b>Surface Resistivity</b>	10 <sup>13</sup> ohm	23°C	IEC 60093
<b>Volume Resistivity</b>	10 <sup>13</sup> ohm/m	23°C	IEC 60093
<b>Comparative Tracking Index (CTI)</b>	400 V	3.2mm, SOL.A	IEC 60112
<b>Dielectric Strength</b>	21 kV/mm	2mm	IEC 60243

<b>Flammability</b>	Value & Unit	Test Condition	Test Method
<b>Glow Wire Flammability Index (GWI)</b>	960 °C	3.2 (0.8mm)	IEC 60695-2-12
<b>Flame Rating, UL 94</b>	V0 class	3.2(1.6)mm	UL94
<b>Glow Wire Ignition Temperature (GWIT)</b>	875 °C	3.2 (0.8mm)	IEC 60695-2-13
<b>Limiting Oxygen Index (LOI)</b>	34 %		ISO 4589

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