

## LNP\* Stat-loy\* Compound AF3009

Asia Pacific: COMMERCIAL

Also known as: AF-FR

Product Reorder Name: AF3009

LNP\* Stat-loy\* AF3009 is a compound based on Acrylonitrile Butadiene Styrene resin containing Glass Fiber, Flame Retardant. Added features of this material include: Antistat, Flame Retardant.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yield	42	MPa	ASTM D 638
Tensile Stress, break	42	MPa	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	43	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	42	MPa	ASTM D 638
Tensile Strain, yield	1.8	%	ASTM D 638
Tensile Strain, break	1.9	%	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	1.8	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2	%	ASTM D 638
Tensile Modulus, 50 mm/min	4130	MPa	ASTM D 638
Flexural Stress	55	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	59	MPa	ASTM D 790
Flexural Modulus	3440	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	3450	MPa	ASTM D 790
Tensile Stress, yield	43	MPa	ISO 527
Tensile Stress, break	42	MPa	ISO 527
Tensile Stress, yield, 5 mm/min	43	MPa	ISO 527
Tensile Stress, break, 5 mm/min	42	MPa	ISO 527
Tensile Strain, yield	1.8	%	ISO 527
Tensile Strain, break	1.8	%	ISO 527
Tensile Strain, yield, 5 mm/min	1.8	%	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	3620	MPa	ISO 527
Flexural Stress	61	MPa	ISO 178
Flexural Stress, yield, 2 mm/min	61	MPa	ISO 178
Flexural Modulus	3200	MPa	ISO 178
Flexural Modulus, 2 mm/min	3200	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	224	J/m	ASTM D 4812
Izod Impact, notched, 23°C	32	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	4	J	ASTM D 3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	15	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m <sup>2</sup>	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	96	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	87	°C	ASTM D 648

CTE, -40°C to 40°C, flow	9.36E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.12E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	9.4E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.2E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	9.4E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	6.2E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	98	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	90	°C	ISO 75/Af
<b>PHYSICAL</b>	<b>Value</b>	<b>Unit</b>	<b>Standard</b>
Density	1.31	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	2	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.8 - 1	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.9 - 1.1	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.93	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1	%	ISO 294
Density	1.31	g/cm <sup>3</sup>	ISO 1183
<b>ELECTRICAL</b>	<b>Value</b>	<b>Unit</b>	<b>Standard</b>
Surface Resistivity	1.E+01 - 1.E+03	Ohm	ASTM D 257
<b>FLAME CHARACTERISTICS</b>	<b>Value</b>	<b>Unit</b>	<b>Standard</b>
UL Compliant, 94V-0 Flame Class Rating (3)(4)	1.5	mm	UL 94 by GE
UL Recognized, 94V-0 Flame Class Rating (3)	1.5	mm	UL 94

Source GMD, last updated:09/24/2008

## Processing

Parameter	Value	Unit
<b>Injection Molding</b>		
Drying Temperature	70 - 80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.05 - 0.1	%
Melt Temperature	200 - 210	°C
Front - Zone 3 Temperature	205 - 215	°C
Middle - Zone 2 Temperature	195 - 205	°C
Rear - Zone 1 Temperature	180 - 195	°C
Mold Temperature	10 - 50	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:09/24/2008

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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