LNP™ STAT-LOY™ Compound AF3009

Asia Pacific: COMMERCIAL

Also known as: LNP™ STAT-LOY™ Compound AF-FR
Product reorder name: AF3009

LNP* Stat-loy* AF3009 is a compound based on AcryloLNP* 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.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	420	kgf/cm²	ASTM D 638
Tensile Stress, break	420	kgf/cm²	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	430	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	420	kgf/cm²	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	42100	kgf/cm²	ASTM D 638
Flexural Stress	560	kgf/cm²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	600	kgf/cm²	ASTM D 790
Flexural Modulus	35100	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	35100	kgf/cm²	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	1.9	%	ISO 527
Tensile Strain, yield, 5 mm/min	1.8	%	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527

(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.
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA.

+135-3858-6433 (GuangDong)
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MECHANICAL			
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			
Izod Impact, unnotched, 23°C	22	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	3	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	48	cm-kgf	ASTM D 3763
Multiaxial Impact	16	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	15	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	ISO 180/1A
THERMAL			
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
PHYSICAL			
Density	1.31	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	2	%	ASTM D 570

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Mold Shrinkage, flow, 24 hrs (5)	0.8 - 1	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.9 - 1.1	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.93	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1	%	ISO 294
Density	1.31	g/cm³	ISO 1183
ELECTRICAL			
Surface Resistivity	1.E+10 - 1.E+12	Ohm	ASTM D 257
FLAME CHARACTERISTICS			
UL Compliant, 94V-0 Flame Class Rating (3)(4)	1.5	mm	UL 94 by SABIC-IP
UL Recognized, 94V-0 Flame Class Rating (3)	1.5	mm	UL 94

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
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

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