



MATERIALS DATA SHEET

787 Renaissance Parkway | Painesville, OH 44077



Material Series: AS8120 (f1)

SERIES DESCRIPTION & APPLICATION

AS8120 is a SMC Product developed for electrical product applications. This product is UL-94 V-0 @ 3.0mm as well as rated f1 for outdoor use. This series provides excellent electrical properties while also providing moderate strength.

General Material Properties		
Property (Test Method)	Value	Units
Specific Gravity (ASTM D792)	1.65-1.75	
Mold Shrinkage (ASTM D955)	0.0015-0.003	in/in
Glass Content	20	%

Mechanical Material Properties (Cut)			
Property (Test Method)	Value (US)	Value (Metric)	Units
Tensile Strength (ASTM D638)	8,000-10,000	55-70	psi (MPa)
Tensile Modulus (ASTM D638)	1.5-1.6 x 10 ⁶	10.3-11.0	psi (GPa)
Flexural Strength (ASTM D790)	20,000-24,000	135-165	psi (MPa)
Flexural Modulus (ASTM D790)	1.25-1.55	8.6-10.7	psi (GPa)
Notched Izod Impact (ASTM D256)	8-12	425-640	ft-lb/in (J/m)

Mechanical Material Properties (Molded)			
Property (Test Method)	Value (US)	Value (Metric)	Units
Tensile Strength (ASTM D638)	12,000-18,000	80-125	psi (MPa)
Tensile Modulus (ASTM D638)	1.65-1.85 x 10 ⁶	11.4-12.7	psi (GPa)
Flexural Strength (ASTM D790)	33,000-39,000	225-270	psi (MPa)
Flexural Modulus (ASTM D790)	1.4-1.7	9.6-11.7	psi (GPa)
Notched Izod Impact (ASTM D256)	8-12	425-640	ft-lb/in (J/m)

All property values are based on test performed on standard ASTM test samples and according to standard ASTM test methods unless otherwise indicated. This information is offered solely for your consideration and is to be used as a guide only. No other warranty is implied.

Contact Us:

CORPORATE HEADQUARTERS

10095 Queens Way Chagrin Falls, Ohio 44023-5495

(440) 543-7526 Fax: (440) 543-4691

www.Altraset.com

Revised: 4/17/25



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Thermal and Electrical Material Properties

Property (Test Method)	Value (US)	Value (Metric)	Units
Flammability (UL 94 V0)	Pass 0.12	Pass 3.0	in (mm)
Heat Deflection Temperature (ASTM D648)	TBD	TBD	°F (°C)
UL RTI Elec, Imp, Str (UL 746B)	266, 266, 266	130, 130, 130	°F (°C)
Dielectric Strength (ASTM D149)	350-390	13.8-15.3	Volts/mil (kV/mm)
Arc Track Resistance (ASTM D495)	185+	185+	Seconds

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