

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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Revised

ALUMINUM ALLOY FOIL 1.2Mn (3S-H18)

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. APPLICATION: Primarily for corrugated or expanded honeycomb core material for use in sandwich construction.
3. COMPOSITION:

Manganese	1.0 - 1.5
Iron	0.7 max
Silicon	0.6 max
Copper	0.20 max
Zinc	0.10 max
Other elements, each	0.05 max
Other elements, total	0.15 max
Aluminum	remainder

4. CONDITION: Hard rolled, mill finish, as free from oil as is commercially practicable.
5. TECHNICAL REQUIREMENTS:
 - 5.1 Tensile Properties: Foil 0.002 in. and over in thickness shall conform to the following requirements. Test specimens shall be cut parallel to the direction of rolling.

Tensile Strength, psi	25,000 min
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6. QUALITY: Material shall be uniform in quality and condition, clean, sound, smooth, and free from foreign materials and from internal and external defects detrimental to fabrication or to performance of parts.
7. TOLERANCES:
 - 7.1 Thickness: The thickness determined by measurement with a Vernier micrometer or calculated from the weight of one square foot shall not deviate from that specified by more than plus or minus 10% of the specified thickness. In case of lack of agreement, the thickness calculated from the weight of a known area shall govern. For such calculations, density shall be taken as 0.099 lb per cu inch.
 - 7.2 Width: The width of foil shall be within plus or minus 0.032 in. of the nominal width.

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