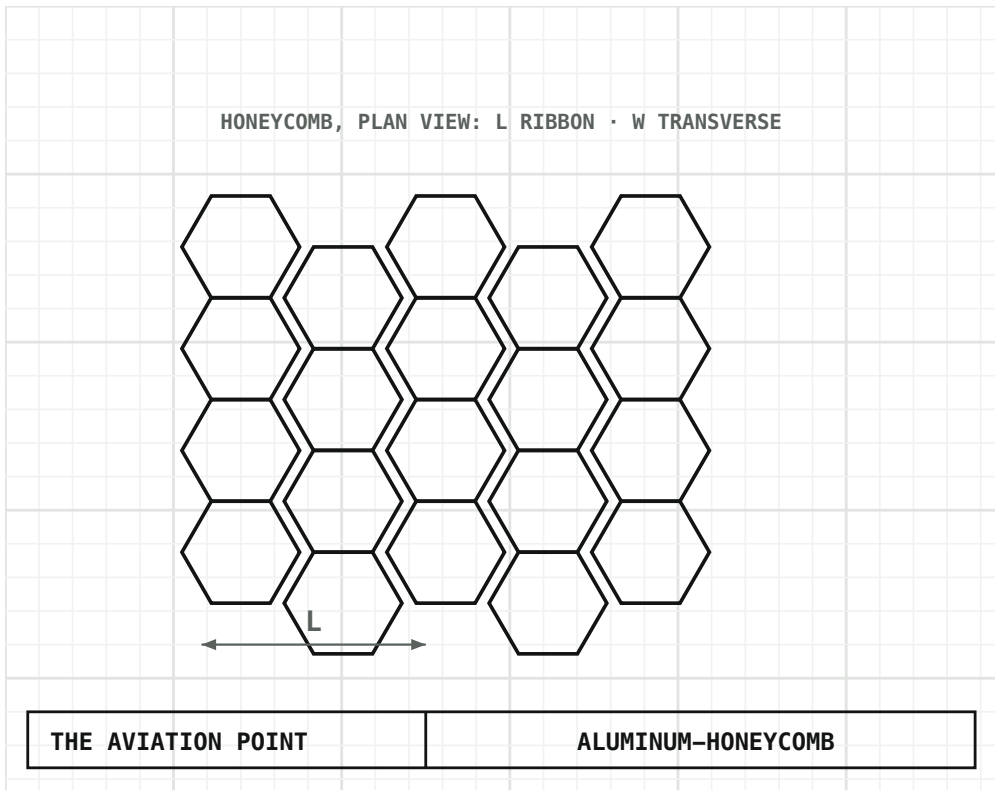
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Aluminum honeycomb — aluminum honeycomb core

Aluminum honeycomb has the best strength-to-weight ratio of the core materials in the FAA list.



Schematic

Designation

Item	Value
Designation	Aluminum honeycomb
Class	Composites
Type	aluminum honeycomb core

HexWeb CR III 5052, 1/8 in cell, typical values

Density, lb/ft³	Bare compressive, psi	Plate shear L, psi	Plate shear W, psi
3.1	285	210	130
4.5	550	340	220
6.1	980	560	340
8.1	1,500	800	470

Hexcel CR III data sheet, Table I, typical (typ) values; a minimum-average column also exists. Columns read from the table in the sheet. 5052 and 5056 are supplied in H-39 temper; density tolerance ±10%.

Notes

- **One alloy family and cell size shown.**
- **Typical values.** Minimum values are lower.
- **Comparison with Nomex** mixes two manufacturers' sheets.

SOURCES · Hexcel HexWeb CR III Corrosion Resistant Specification Grade Aluminum Honeycomb, Product Data Sheet · Hexcel HexWeb HRH-10 Product Data Sheet · FAA-H-8083-31B, AMT Handbook — Airframe, Volume 1, Chapter 7

SCAN · OPEN THIS DATA SHEET
theaviationpoint.com/parts/materials/aluminum-honeycomb/

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.