

## Hexcel® HexWeb® CR III 1/8-5052-.0025 Corrosion Resistant Specification Grade Aluminum Honeycomb

Category : Metal , Metal Foam, Mesh, or Honeycomb , Nonferrous Metal , Aluminum Alloy , 5000 Series Aluminum Alloy

### Material Notes:

Grade is designated as "Cell Size-Alloy-Foil Gauge." 5052 and 5056 expanded aerospace grade aluminum honeycomb materials are available in a wide selection of cell sizes and foil gauges. The HexWeb® CR III coating has been developed to offer superior protection for aluminum honeycomb exposed to corrosive environments. The HexWeb® CR III system offers a clear protective film that interacts with the aluminum surface forming a stable, tightly adherent bond. The coating is primarily in an organo-metallic polymer type that differs from the normal conversion-type corrosion protective coatings. Hexcel expanded honeycomb is manufactured by bonding together sheets of aluminum foil, then expanding to form a cellular honeycomb configuration. Resulting panels have sharp, clean cell walls, are essentially burr-free, and are suitable for high-quality core-to-facing bond. Aluminum HexWeb® CR III Specification Grade honeycomb materials are predominantly used in sandwich structures to meet design requirements for highly engineered structural components. As a structural core material it finds applications in all types of aerospace vehicles and supporting equipment where sandwich structure offers rigid panels of minimum weight, aerodynamic smooth surfaces, and high fatigue resistance. The same structural properties are also used for commercial applications such as tools, snow and water skis, bulkheads, and floors. Other nonstructural uses are direction air/fluid flow control, RF shielding, and energy absorption.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Hexcel-HexWeb-CR-III-18-5052-0025-Corrosion-Resistant-Specification-Grade-Aluminum-Honeycomb.php](http://www.lookpolymers.com/polymer_Hexcel-HexWeb-CR-III-18-5052-0025-Corrosion-Resistant-Specification-Grade-Aluminum-Honeycomb.php)

Physical Properties	Metric	English	Comments
Density	0.160 g/cc	0.00579 lb/in <sup>3</sup>	Nominal

Mechanical Properties	Metric	English	Comments
Compressive Yield Strength	>= 10.86 MPa	>= 1575 psi	Bare, min, preliminary
	>= 11.62 MPa	>= 1685 psi	Stabilized, min, preliminary
	14.5 MPa	2100 psi	Bare, typ, preliminary
	15.5 MPa	2250 psi	Stabilized, typ, preliminary
Shear Modulus	0.448 GPa	65.0 ksi	Plate Shear, W Direction, typ, preliminary
	1.21 GPa	175 ksi	Plate Shear, L Direction, typ, preliminary
Shear Strength	>= 2.86 MPa	>= 415 psi	Plate Shear, W Direction, min, preliminary
	3.79 MPa	550 psi	Plate Shear, W Direction, typ, preliminary
	>= 5.07 MPa	>= 735 psi	Plate Shear, L Direction, min, preliminary

Mechanical Properties	Metric <sup>Pa</sup>	English	Comments <small>Plate Shear, L Direction, typ, preliminary</small>
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