



THE GILL CORPORATION-MARYLAND



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The Gill Corporation - Maryland has long been a leader in providing high-quality, lightweight structural core materials to the aerospace, marine, construction, rail and industrial markets. With a wide variety of structural honeycomb core materials, The Gill Corporation - Maryland can draw upon its broad engineering expertise along with sophisticated 5-axis CNC machining and added value processing to deliver solutions that respond to customer needs.

The origins of The Gill Corporation - Maryland date back to 1958 when a forerunner company began manufacturing adhesives and honeycomb. This not only provides The Gill Corporation - Maryland with ready access to a full line of Nomex® and Kevlar® honeycomb core products, but also strengthens its worldwide network of customers and agents.

Today The Gill Corporation - Maryland employs a workforce of approximately 250 people, with separate buildings for metallic and non-metallic honeycomb operations located approximately 20 miles north of Baltimore, Maryland. Lean Manufacturing principles provide efficient work flow to reduce lead times, improve quality, and drive out waste. The Gill Corporation - Maryland's FORM B facilities maintain ISO 9001:2000, AS 9100 Rev. D and NADCAP quality approvals.

THE GILL CORPORATION - MARYLAND KEY PRODUCT LINES

DURA-CORE® II HONEYCOMB

High-Performance Aluminum Honeycomb

DURA-CORE® II 5052 aluminum honeycomb provides the aerospace and commercial markets with a high degree of flexibility in solving lightweight structural design challenges. Prior to bonding, the foil is cleaned and treated using a proprietary chemical conversion coating. The resulting honeycomb exhibits excellent corrosion resistance in hostile environments, especially salt fog. We produce a broad range of cell sizes and densities, assuring that the correct product will be available for your application.



HIGRID® HONEYCOMB

High-Strength Corrugated Aluminum Honeycomb

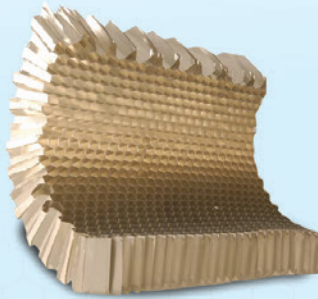
HIGRID® high-strength corrugate aluminum honeycomb offers an ideal solution for fastener inserts and edge reinforcements in honeycomb structures. It also excels as a high-impact energy-absorber. Produced by bonding together corrugated sheets of aluminum foil, much higher densities are possible than with conventional expanded honeycomb.



PAA-CORE® HONEYCOMB

The Ultimate Aluminum Honeycomb

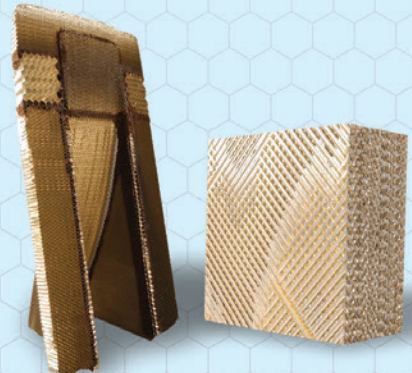
Using a phosphoric acid anodized metal treatment process developed by Boeing, The Gill Corporation - Maryland introduced the industry to PAA-CORE® aluminum honeycomb back in 1988. (PAA stands for phosphoric acid anodized.) This is highly corrosion resistant aluminum honeycomb core with excellent bonding capability and durability. It is an accepted replacement for non-metallic core with an outstanding record. One of its distinctions is a high strength to weight ratio. Over a decade of operational experience has shown that bond durability between core and skins is critical to long part life, and for this, PAA-CORE® has no equal. Independent analysis confirms the environmental performance durability of PAA-CORE®, assuring a lower total life cost than with other core materials. PAA-CORE® also has unsurpassed corrosion resistance, experiencing only minimal weight loss and virtually no loss of physical properties after extended exposure in an acidified salt spray chamber, which simulates the harshest environmental conditions.



TRUSSGRID® HONEYCOMB

Three-Dimensional Honeycomb

TRUSSGRID® three-dimensional honeycomb is a dimensionally stable, naturally vented, rigid core material made of cross-laminated aluminum foil corrugations. With considerable strength in all three dimensions, TRUSSGRID® offers unique performance in special types of sandwich construction and as a high-impact absorber.



SLATS

Machined Formgrid™ flexible honeycomb with high-density standard honeycomb

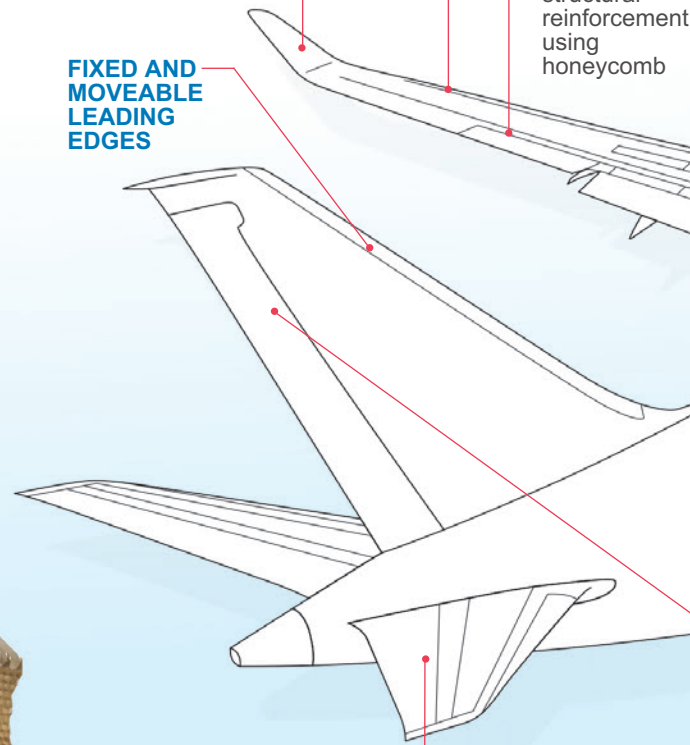
WINGLETS

Machined and formed Nomex® honeycomb

RIBS

Critical structural reinforcement using honeycomb

FIXED AND MOVEABLE LEADING EDGES



ELEVATOR

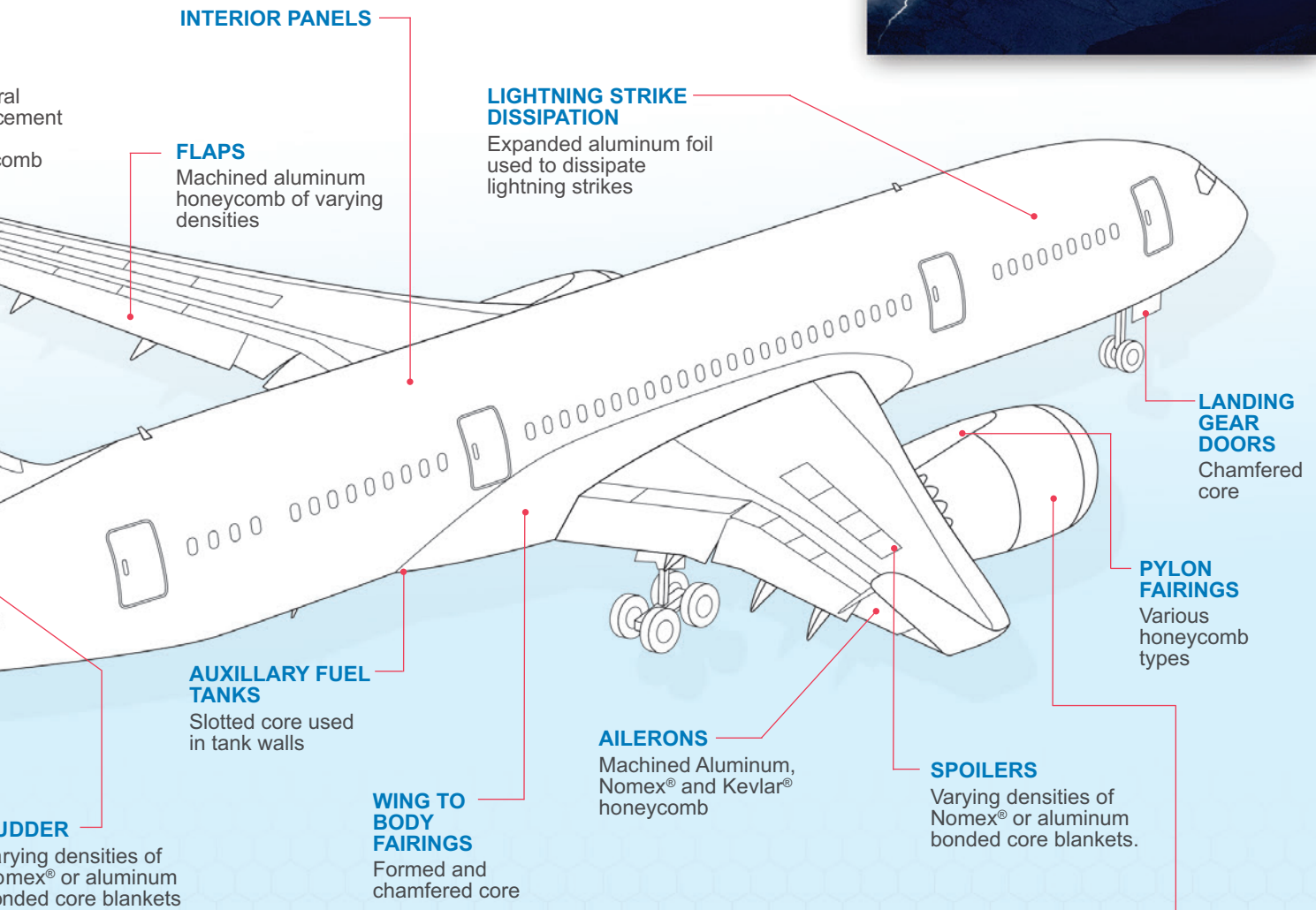
Single-piece aluminum or Nomex® honeycomb core.

RUDDER

Varying density Nomex® bonded core

PAA STRIKEGRID®

Continuous expanded aluminum foil is the industry's highest-performing lightning strike dissipation material. Phosphoric acid anodized and coated with a proprietary coating, it outperforms all other ductile materials.



BLOCKER DOORS

NACELLES

Machined, slotted and formed aluminum and Nomex® honeycomb

ACOUSTIC PANELS

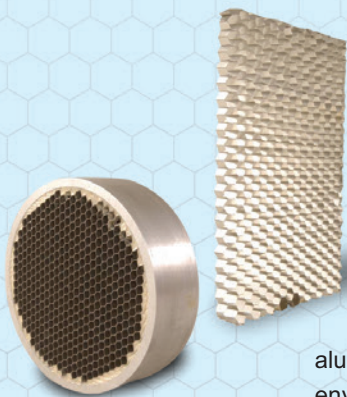
Specific honeycomb cell configuration results in excellent noise attenuation properties

THRUST REVERSE COWLING

Machined Shapegrid® honeycomb used in this highly loaded application

COMMERCIAL GRADE HONEYCOMB

The Gill Corporation - Maryland's most economical aluminum honeycomb, Commercial Grade Honeycomb is a lightweight structural core material that offers excellent strength and corrosion resistance to meet a wide variety of applications. An advanced protection system is applied to the aluminum foil prior to processing into honeycomb, extending its service life in hot, wet and corrosive environments.



THE GILL CORPORATION - MARYLAND CAPABILITIES

- Standard aluminum honeycomb in block, slice or expanded form to many aerospace specifications
- Corrosion protection using PAA process with plastic coating
- Honeycomb for non-aerospace activities such as clean rooms, railway carriage doors and panels
- Honeycomb impact limiters for nuclear, rail and automotive uses
- Lightning strike protection for composite structures
- Engine Nacelles (aluminum and Nomex®)
 - Inner Fixed Structures for thrust reversers
 - Translating Sleeves for thrust reversers
 - Inlet Cowls
 - Fan Cowls
 - Blocker Doors
 - Acoustic treatment
- Flight controls (aluminum and Nomex®)
 - Ailerons
 - Elevators
 - Rudders
 - Flaps
 - Slats
 - Spoilers
- Fairings
 - Wing to body
 - Flap track
 - Winglets
- Panels (aluminum and Nomex®)
 - Undercarriage doors
 - Access panels



SPECIAL PROCESSING

The Gill Corporation - Maryland special processing capabilities set us apart from the competition. When your design requires you to cut, shape, mill, form, bond or even combine different core densities and types of materials, you can count on our special processing expertise. From our ability to machine complex shapes to our capacity for fabricating multi-density core assemblies, The Gill Corporation - Maryland stands ready to meet your most challenging design needs. Plus, we can save you even more time and money by packaging these parts into complete kits. And, because all of our manufacturing facilities are 100% Form-B clean core compliant, our finished parts and assemblies are ready for immediate bonding at your facility without further cleaning or processing.

The Gill Corporation - Maryland Special Processing Capabilities

- Tool design • Tool manufacture • Complex bonding
- Potting • Stabilizing • Roll-forming • Routing • Heat forming
- 3- and 5-axis machining • Planforming • Chamfering
- Horizontal and vertical sawing • Arc and flat expanding
- General handwork • Custom Contouring (SHAPEGRID®)



Quality Policy

The Gill Corporation provides products and services that always meet or exceed our customer requirements. We will continually improve the effectiveness of the quality management system to meet the needs of all interested parties – our employees, suppliers, and customers.



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