

The Doorway

A Publication of The Gill Corporation

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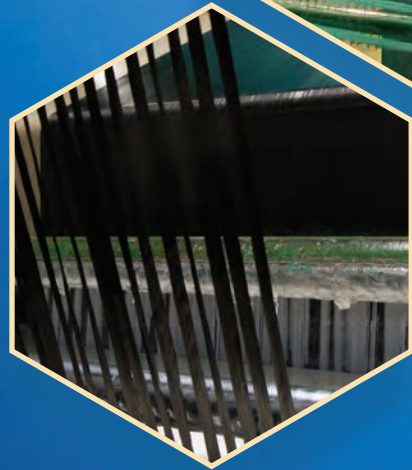
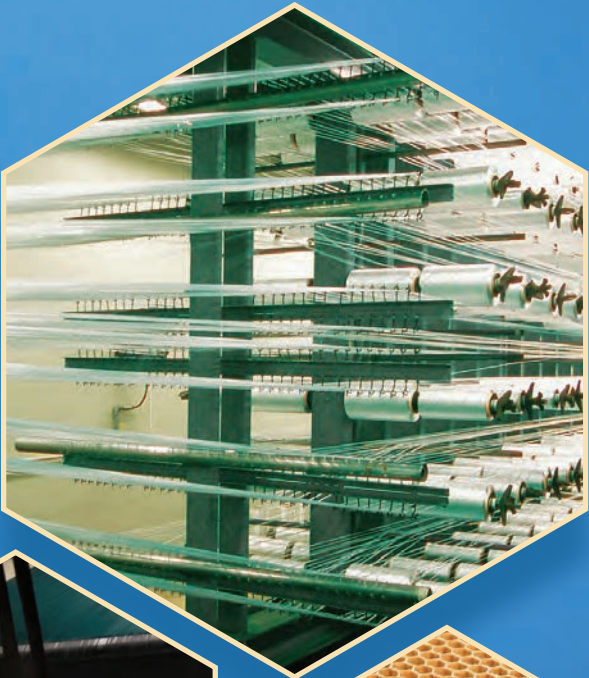
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PRODUCTS & CAPABILITIES

COMPOSITE MATERIALS

The Gill Corporation manufactures the essential sub-components in-house, allowing for strict control over material quality, schedule, cost, and properties. Constituent materials are tailored to deliver optimized product solutions that meet rigorous strength, weight, and performance characteristics. Continuous R&D and process engineering improvements, coupled with expertise in polymer chemistry and composite design, yield unlimited combinations of materials.



RESIN FORMULATIONS*

- ◆ Epoxy
- ◆ Phenolic
- ◆ Polyester

PREPREGS*

- ◆ Woven
- ◆ Unidirectional
- ◆ Fiber reinforcements made of carbon, nylon, and E-, S-, and Hybrid Fiberglass

ADHESIVES*

- ◆ Epoxy
- ◆ Phenolic
- ◆ Elastomer

HONEYCOMBS

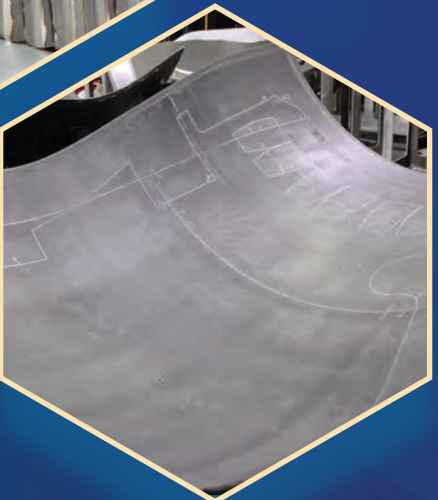
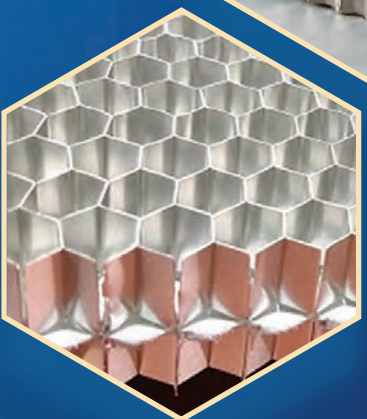
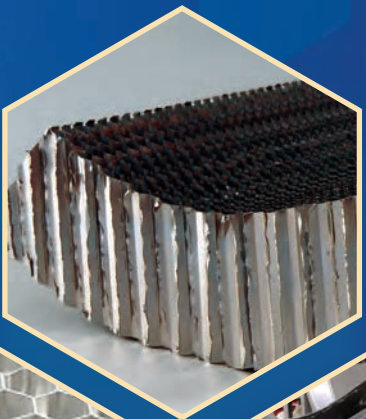
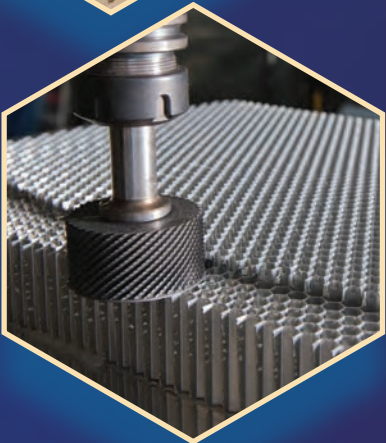
- ◆ Non-Metallic
- ◆ Metallic

*These materials are manufactured solely for internal use and are not available for sale

PROCESSES AND CAPABILITIES

Vertically integrated manufacturing offers customers a broad spectrum of capabilities, ranging from new product innovation of raw materials, to finished parts and fabricated assemblies, and to fully configured shipset kits delivered just in time.

- ◆ Mixing Vessels and reactors for compounding proprietary resin and adhesive systems
- ◆ Adhesive Film Coater
- ◆ Computer-Controlled Horizontal Band Saws
- ◆ Environmentally-Controlled Lay-Up Rooms
- ◆ Multi-Opening Platen Presses
- ◆ Continuous Roll-Form Press
- ◆ Bake and Cure Ovens



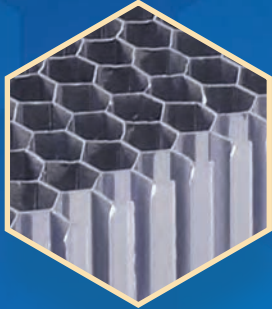
- ◆ Vacuum-Bagging and Heat Forming Processes
- ◆ Flow Coating Resin Densification Line
- ◆ 3-, 5- and 6-Axis CNC Machines
- ◆ Robotic Insert Placement and Presses
- ◆ Hydraulic Insert Presses
- ◆ 3D Design and Modeling Tools
- ◆ Chemical, Mechanical, Flammability Testing
- ◆ CMM Inspection

HONEYCOMB CORE PRODUCTS

Metallic, non-metallic and specialty honeycombs in a wide-range of materials, cell sizes, densities and dimensions. These materials are available in expanded or unexpanded block, slice and machined form or can be incorporated into sandwich-composite bonded structures and panels, energy absorption and impact limiters.

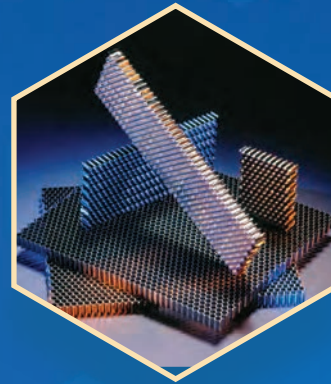
METALLIC CORE

- ◆ DURA-CORE® aluminum
- ◆ PAA-CORE® aluminum
- ◆ Commercial Grade aluminum
- ◆ Alcopan™
- ◆ Custom core



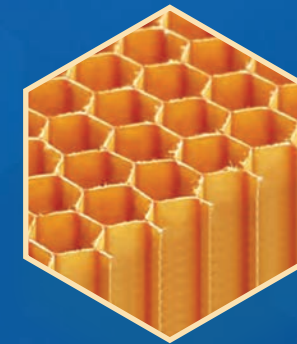
METALLIC SPECIALTY CORE

- ◆ HIGRID®
- ◆ SHAPEGRID®
- ◆ STRIKEGRID®
- ◆ TRUSSGRID®
- ◆ PLYGRID®



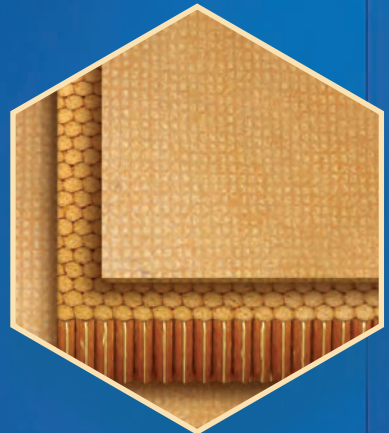
NON-METALLIC CORE

- ◆ GILLCORE HD® (Meta-aramid fiber)
- ◆ GILLCORE HK® (Para-aramid fiber)
- ◆ GILLCORE HF (Fiberglass)
- ◆ Custom Core



NON-METALLIC SPECIALTY CORE

- ◆ Coated cores
- ◆ Single-piece flow coating
- ◆ GILIVANA®
- ◆ GILFISTS®



HONEYCOMB ADDED VALUE CAPABILITIES, PROCESSES AND SERVICES

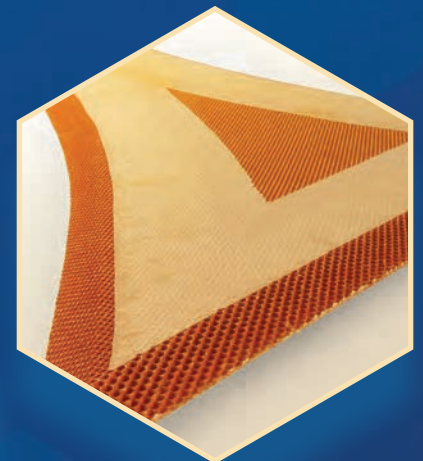
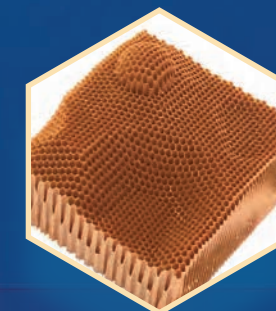
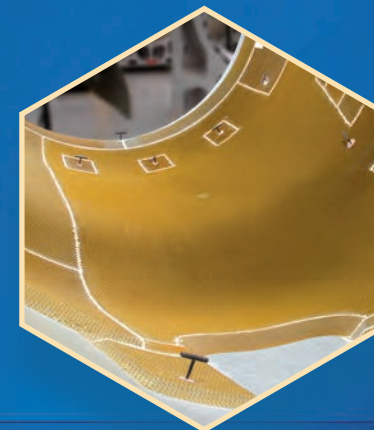
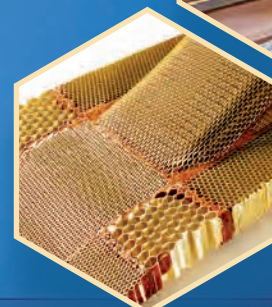
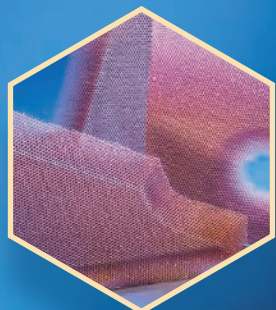
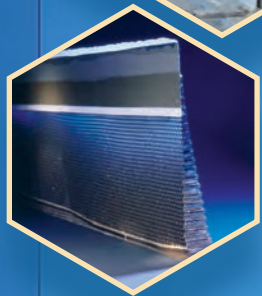
3-, 5- and 6-axis CNC machining capabilities for metallic and non-metallic honeycomb and in-house tool making.

- ◆ Expanded and Unexpanded
- ◆ Corrugated and Non-Corrugated
- ◆ Pre-Crushed Option
- ◆ Splice Bonded Assemblies
- ◆ Septumized Core Bonding
- ◆ Potting and Hard-Point Densification
- ◆ Film Adhesive Stabilization
- ◆ Arc and Standard Expansion

- ◆ Milling and Sawing Unexpanded Cuettes
- ◆ Heat Forming
- ◆ Vacuum Bagging
- ◆ Roll Forming
- ◆ Core Slotting
- ◆ Core Details
- ◆ Periphery Trimming and Cutouts

- ◆ Tapers Sawing
- ◆ Chamfered Edging
- ◆ High-Speed Hand Routing
- ◆ Gerber Cutting
- ◆ Drilling
- ◆ Form-B Clean Core Compliant

- ◆ Custom Block and Slice Availability
- ◆ Multiple Coating Options
- ◆ Assembly and Kitting
- ◆ Testing and Certification
- ◆ 3D Designing and Modeling



LAMINATION AND PRESSING

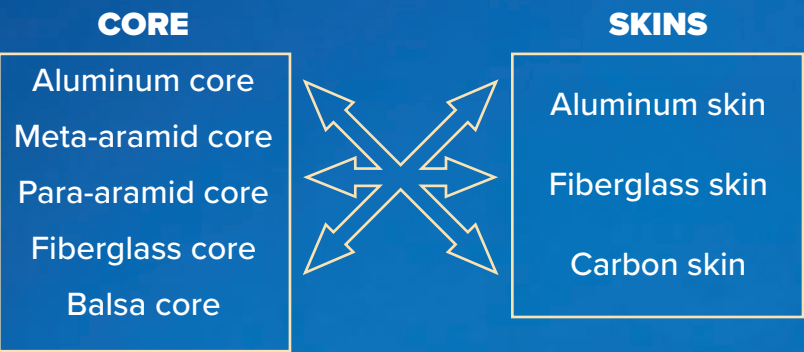
Offering a wide range of products based upon optimized raw materials that are vertically integrated through production processes into products that meet specific customer requirements. Within most material combinations, mechanical and physical properties can be highly tailored by modifying key characteristics, including the overall thickness, number and types of facing plies, and/or types of honeycomb core, including cell size and density.

SPECIALTY LAMINATES AND CARGO LINER

- ◆ High-performance Laminates
- ◆ Abrasion, Impact and Fire-barriers
- ◆ Fiberglass – Epoxy/ Phenolic/Polyester resins

SANDWICH PANELS

Any combination of material types, built from materials such as:



APPLICATIONS – MEETING FST REQUIREMENTS WHERE REQUIRED

- ◆ Cargo Bay – Floor Panels, Sidewalls, Ceilings, Partition Walls, Bulkheads, Cargo Linings, Repair Patches, and other applications
- ◆ Passenger Compartment – Floor Panels, Interior Panels for use in Dividers, Lavatory, Galley, Monuments, Side Walls, Stow Bins and other applications



ADDED VALUE FABRICATION, ASSEMBLY, KITTING AND SERVICES

The Gill Corporation supplies products from raw materials and can deliver added value parts and services to meet customer needs. This includes offering semi-finished materials to complex bonded assemblies and end-item fabrication kits for an entire shipset that are staged for installation.

FORM FACTORS

- ◆ Raw materials to fabricated parts and assemblies
- ◆ Flat, Curved, Formed and Contoured

MULTI-FUNCTIONALITY

- ◆ Vibration and sound-damping panels integration

MACHINED AND DETAILED LAMINATES AND PANELS

5-AXIS TITANIUM AND ALUMINUM METALLIC MACHINING

FABRICATED LAMINATE AND PANEL ASSEMBLES

- ◆ Inserts, Insulation Blankets, Vibration Damping and Sound Damping
- ◆ Anti-Skid Tapes, Part Markings and Labels
- ◆ Fittings, Intercostals, Splice Plates
- ◆ Edge Fill and Edge Seal
- ◆ Vacuum Bag

CUSTOMIZED DESIGN, FABRICATION, ASSEMBLY AND KITTING

AFTERMARKET SUPPORT

- ◆ OEM-Qualified Replacement Materials
- ◆ Proprietary Designs offering improved durability to OEM and competitor products.



"Business is 50% about product – the other 90%, as Yogi would figure it, is the people."
– PETER SHUTZ

"Almost all big mistakes are made when people perceive things are going well."
– JASON BEANS

"Another flaw in the human character is that everybody wants to build and nobody wants to do maintenance."
– KURT VONNEGUT, AUTHOR

"Everything should be made as simple as possible and no simpler."
– ALBERT EINSTEIN, PHYSICIST

"I am a man of fixed and unbending principles, the first of which is to be flexible at all times."
– EVERETT DIRKSEN, SENATOR

"At any moment during a 24-hour day, only one third of the people in the world are asleep. The other two-thirds are awake and creating problems."
– HYMAN RICKOVER, ADMIRAL

"I want to live my life so that when I die they don't have to call a temp agency for pallbearers."
– GREGORY EDWARDS

"Ideas are a commodity. Execution of them is not."
– MICHAEL DELL, DELL CORPORATION

"The money you have will give you freedom. The money you pursue will enslave you."
– JEAN-JACQUES ROUSSEAU, PHILOSOPHER

"Egotism is the only disease known to mankind that affects everyone except the carrier."
– RED SCOTT, VISTAGE SPEAKER

"Don't cry because it is over...smile because it happened."
– DR. SEUSS

"It's what you learn after you know it all that counts."
– JOHN WOODEN, UCLA COACH

Quotables

"It's easier to throw hand grenades than it is to catch them."
– LYNDON B. JOHNSON, PRESIDENT

"An organization that runs like clockwork is great but only if its goal is to run around in the same circles forever."
– UNKNOWN

"In America, anyone can grow up to be President. It's just one of the risks one takes."
– ADLAI STEVENSON, PRESIDENTIAL CANDIDATE

"You can't make anything idiot-proof, because idiots are so ingenious."
– STEPHEN GILL



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