



**THE GILL CORPORATION**

*HIGH PERFORMANCE COMPOSITE PRODUCTS SINCE 1945*



**Boeing Qualified Products**



It's been more than 60 years since The Gill Corporation (TGC) qualified its first proprietary materials with The Boeing Company. In the decades since, we have introduced a rich portfolio of high performance cargo liners, floor panels and honeycomb to support Boeing operators worldwide. As design requirements and materials demands have evolved, so too has our broad product offering. What remains unchanged is our commitment to providing the highest quality materials and delivering unsurpassed customer service.



## BOEING QUALIFIED PRODUCTS

# Cargo

### **BMS 8-2, Class 1 Grade A Types 13, 23, 35, 45, 59, 70**

**GILLINER® 1567A (formerly 1566C/1076C)** are general purpose grade liners constructed from woven E-glass cloth with a polyester resin system. These products have good mechanical strength for use in the cargo compartment areas, bulkhead facings and blowout panels for commercial aircraft. They meet requirements of FAR 25.853 & 25.855 Appendix F Part I and III.

### **BMS 8-2, Class 3 Grade A Types 20 and 45**

**GILLINER® 1568A (formerly 1566D/1076D)** are high wear resistant grade liners constructed from woven E-glass cloth with a polyester resin system introduced specifically for use in the B737 lower sidewall. These products feature resin rich surfaces to address wear through over frame sections and attach points that are associated with repetitive bulk cargo loading. They meet requirements of FAR 25.853 Appendix F Parts I and III.

### **BMS 8-2, Class 2 Grade A Types 11, 20, 30, 45, 70**

**GILLINER® 1569A (formerly 1566/1366C)** are high impact resistant grade liners constructed of woven E- and S-glass cloth with a polyester resin system to optimize strength, weight and cost. They offer superior mechanical properties and a higher strength-to-weight ratio compared to all E-glass constructions. They meet requirements of FAR 25.855 Appendix F Parts I and III.

### **BMS 8-2, Class 2 Grade B Types 11, 20, 30, 45, 70**

**GILLINER® 1570A (formerly 1566T/1366F)** are identical to Gilliner® 1569A/1566 but with a 1 mil white PVF film overlay on the face side.

### **BMS 8-223, Class 2 Grade B Types 13, 20, 30, 40, 50, 70**

**GILLFAB® 1368A (formerly 1367/1367A)** are high strength, low FST grade liners constructed using either woven S-glass or woven E- and S-glass cloth with a modified phenolic resin system and a 1 mil white PVF film overlay on the face side for surface reflectivity and uniform appearance. Gillfab® 1367A (now 1368A) was first introduced more than 30 years ago and has since become the standard for major OEM programs throughout the world. These products are also used as backing material for non-textile floor mats used in wet areas of cabin interiors (without PVF film overlay).



They meet the requirements of FAR 25.853 and 25.855 Appendix F Parts I, III, IV and V.

### **BMS 8-223, Class 4 Grade B Types 13, 20, 30, 40, 50**

**GILLFAB® 1368B (formerly 1367B)** are high strength, light weight, low FST grade liners constructed from woven S-glass cloth with a modified phenolic resin system and a 1 mil white PVF film overlay on the face side. These products meet the same strength requirements of BMS 8-223 Class 2 but at a 20-25% weight savings, depending on thickness. These materials are also used as backing material for non-textile floor mats used in wet areas of cabin interiors (without PVF film overlay) as they feature low moisture absorption. They meet the requirements of FAR 25.853 and 25.855 Appendix F Parts I, III, IV and V.

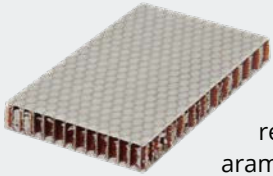
### **BMS 8-223, Class 5 Grade B Types 7, 27**

**GILLFAB® 1368G (formerly 1367G)** are ultra light weight, high strength, low FST liners constructed from woven S-glass cloth with a modified phenolic resin system and a 1 mil white PVF film overlay on the face side. Type 7 meets the same strength requirements of BMS 8-223 Type 13 at a 30-43% weight savings, depending on Class; Type 27 meets the same strength requirements of BMS 8-223 Type 40 at a 17-35% weight savings, depending on Class. These feature-rich products are ideally suited for today's state-of-the-art aircraft. Consequently, They are the preferred cargo compartment liners for Boeing's 787 Dreamliner.

BOEING QUALIFIED PRODUCTS

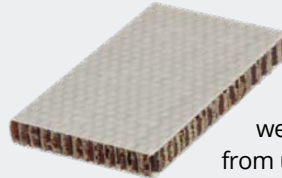
# Cabin

What remains unchanged is our commitment to providing the highest quality materials and delivering unsurpassed customer service.



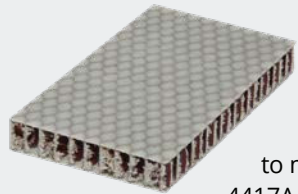
**BMS 4-17, Types I – V and IX**

**GILLFLOOR® 4417** is a high strength floor panel made from unidirectional fiberglass reinforced epoxy facings bonded to meta-aramid honeycomb core. Gillfloor® 4417 is a versatile floor panel suitable for different areas in commercial aircraft. 4417 Type I is for use in low traffic and underseat areas, Type II is for use in aisles and entries, Type III is for use in galleys or other high loaded areas, Type IV is for use in cargo area, Type V is for use in galleys and Type IX is for use in general heavy duty areas. This floor panel is fatigue, corrosion and moisture resistant with high impact strength. It meets the requirements of FAR 25.853 and 25.855 Appendix F Part I.



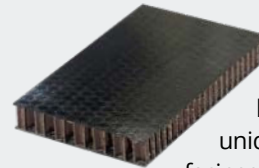
**BMS 4-17, Types X, XI**

**GILLFLOOR® 4518** is a light weight aircraft flooring panel made from unidirectional and woven fiberglass reinforced modified epoxy facings bonded to Gillcore® para-aramid honeycomb core. Gillfloor® 4518 is a versatile aircraft flooring panel suitable for passenger compartment under-seat, aisles, freighter flooring and cargo areas. It is fatigue and corrosion resistant with high impact strength. It offers a high strength-to-weight ratio and similar mechanical performance to BMS 4-17, Types I-VI and IX with a 10-15% weight savings. It meets the requirements of FAR 25.853 and 25.855 Appendix F Part I.



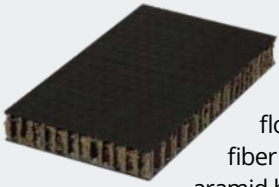
**BMS 4-17, Type VI**

**GILLFLOOR® 4417A** is a high strength flooring panel made from unidirectional fiberglass reinforced epoxy facings bonded to meta-aramid honeycomb core. Gillfloor® 4417A is designed for use in highly loaded areas such as entries, galleys and lavatories. This floor panel is fatigue, corrosion and moisture resistant with high impact strength. It meets the requirements of FAR 25.853 and 25.855 Appendix F Part I.



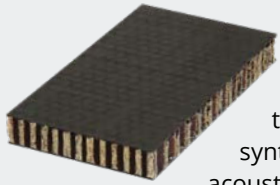
**BMS 4-20, Types II, III and V**

**GILLFLOOR® 4709** is a light weight, high strength flooring panel made from unidirectional carbon fiber reinforced epoxy facings bonded to meta-aramid honeycomb core. Outer panel surfaces feature fiberglass overlay to help protect against galvanic corrosion. The carbon facings deliver low panel deflection under load and achieve 10-12% weight savings as compared to unidirectional glass reinforced material. It meets the requirements of FAR 25.853 and 25.855 Appendix F Part I.



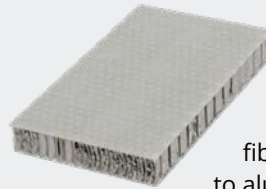
**BMS 4-20, Types VI - IX**

**GILLFLOOR® 4809** is an ultra light weight floor panel made from unidirectional carbon fiber reinforced epoxy facings bonded to para-aramid honeycomb core. Outer panel surfaces feature fiberglass overlay to help protect against galvanic corrosion. This product is designed for passenger and containerized cargo compartments of commercial aircraft in which weight is a major consideration. Gillfloor® 4809 offers 20% weight savings (depending on Types) vs. carbon meta-aramid panel having comparable properties. It meets the requirements of FAR 25.853 and 25.855 Appendix F Part I.



**BMS 4-20, Types X and XI**

**GILLFAB® 4809G (GILLVANA®)** is the same construction as a 4809 except that the honeycomb is coated with GILLVANA®, a synthetic viscoelastic coating that integrates acoustic damping technology. This product brings about acoustic benefits while still meeting physical, mechanical and FST requirements. Sandwich panels can be optimally designed to deliver improved acoustics for specific applications with minimal weight addition. GILLVANA® panels are ideal for aircraft interior sandwich panel applications such as flooring and sidewalls.



**BMS 4-23, Types I - III, Class 2/1**

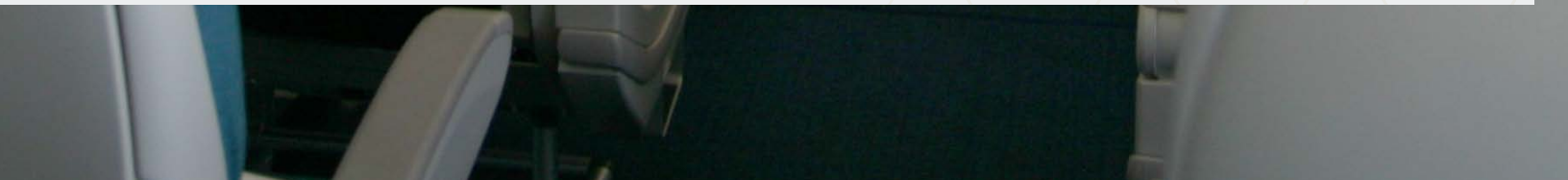
**GILLFLOOR® 5424** is a high strength flooring panel made from unidirectional fiberglass reinforced epoxy facings bonded to aluminum honeycomb core. This versatile flooring panel is suitable for passenger and cargo compartments. 5424 Type I is used in low traffic areas such as underseat areas. Type II is used in high traffic areas such as aisles and entries. Type III (similar to Type II with thicker facings), is used in high traffic and other heavy duty areas such as aisles, galleys or other high loaded areas. Gillfloor® 5424 is fatigue and corrosion resistant with high impact strength. Aluminum honeycomb core offers an economical alternative to aramid honeycomb products. It meets the requirements of FAR 25.853 and 25.855 Appendix F Part I.



**BMS 4-10, Type I, Grade A - G**

**GILLFAB® 5040** is an aerospace grade sandwich panel made from aluminum alloy facings bonded to end grain balsa wood core. The panel is designed for use as flooring, galley panels, cargo containers and bulkheads of commercial aircraft. It meets FAR 25.853 and 25.855 Appendix F Part I.

For fabricated assemblies info, please refer to page 7.

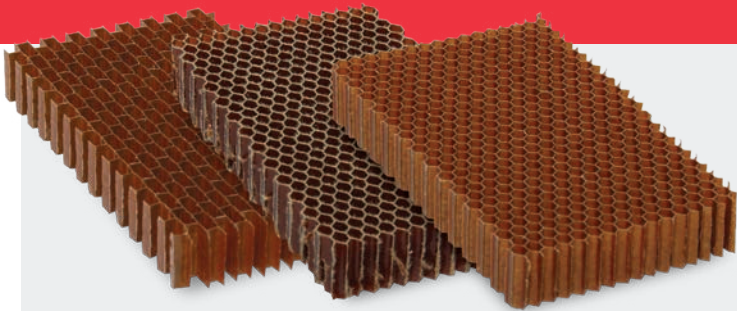




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**BOEING QUALIFIED PRODUCTS**

# Honeycomb Core

**BMS 8-124, Class IV Types I, II, V, VI**

**GILLCORE® HD** is a meta-aramid fiber reinforced honeycomb which is coated with heat resistant phenolic resin. Gillcore® HD is available in a wide range of honeycomb types, including different cell sizes, cell geometries, paper thicknesses and densities, for commercial and aerospace defense applications. This material is used for interior aircraft panels including flooring, sidewalls, ceilings, galleys and lavatories. Exterior applications include trailing and leading edges, flaps, ailerons, radomes, fairings, helicopter blades, access panels and doors. Gillcore® HD features a high strength-to-weight ratio and high toughness. It is corrosion, impact, fatigue and fire (self-extinguishing) resistant. Gillcore® HD has excellent dielectric properties exhibiting good electrical insulating properties, thermal stability and formability for curve forming. Gillcore® HD Type VI is the overexpanded "OX" core, which allows for shaping the core into complex curved surfaces.

**BMS 8-124, Class VI, Types V Grade 2.5, 3.0, 4.0, 6.0 and Types VI, Grade 2.5**

**GILLCORE® HK** is a para-aramid fiber reinforced honeycomb which is coated with heat resistant phenolic resin. As a saturable substrate, para-aramid paper becomes a true composite when converted to honeycomb, offering exceptional shear strength and modulus, durability, and hot/wet properties. Para-aramid honeycomb cores exhibit enhanced performance characteristics over meta-aramid honeycomb core in the areas of weight, strength, stiffness and fatigue. Gillcore® HK is available in a wide range of honeycomb types, including different cell sizes, cell geometries, paper thicknesses and densities, for commercial, military, aerospace and defense applications. This material is also a lower cost alternative to bias weave fiberglass reinforced honeycomb. This material is

ideal for interior aircraft panels including flooring, sidewalls, ceilings, galleys and lavatories. Exterior composite structure applications include trailing and leading edges, flaps, ailerons, radomes, fairings, access panels and doors. Gillcore® HK is conducive to heat formability for complex and contour components with excellent thermal stability. It features an extremely high strength-to-weight ratio, high toughness, shear strength and shear modulus. Gillcore® HK is corrosion and fire resistant (self-extinguishing). Gillcore® HK Type VI the overexpanded "OX" core, which allows for shaping the core into complex curved surfaces.

**BMS 4-4, Class N, P, ND Grade I Types All**

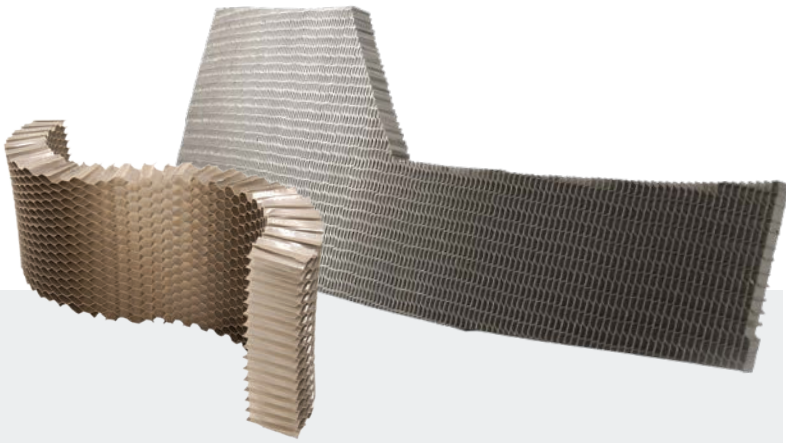
**DURA-CORE® II 5052** aluminum honeycomb provides the aerospace and commercial markets with a high degree of flexibility in solving lightweight structural design challenges. Prior to bonding, the foil is cleaned and treated using a proprietary chemical conversion coating. The resulting honeycomb exhibits excellent corrosion resistance in hostile environments, especially salt fog.

**BMS 4-4, Class NPA Grade I Types All, Class NPA, F-20 Grade II, III Types 3-60**

**PAA-CORE® 5052** aluminum honeycomb is the industry's highest performing core material. Phosphoric acid anodized and coated with a proprietary primer, it outperforms all other core materials. PAA-CORE® has unsurpassed corrosion resistance, experiencing only minimal weight loss after 31 days in an acidified salt spray chamber, which simulates the harshest environmental conditions, retaining virtually all of its physical properties during this test. PAA-CORE® outperforms non-metallic core materials due to a significantly higher strength-to-weight ratio and hot/wet strength. PAA-CORE® offers designers higher performance with lower weight at less cost than non-metallic cores.

**BMS 4-25, Class All Grade I Types 2-30, 6-30, 6-40**

**PAA-CORE® 5056** aluminum honeycomb is a highly durable and corrosion-resistant material with excellent bonding capabilities. It is an accepted replacement for non-metallic core with an outstanding record of standing up to harsh environments.

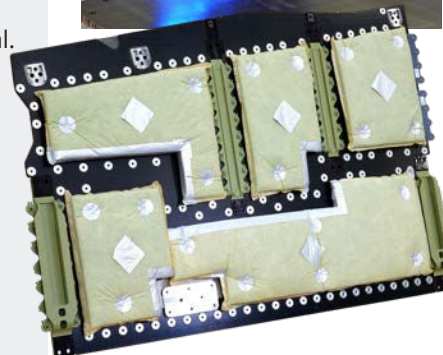


**BMS 4-4, Class 3-60N F20 Grade II**

**HIGRID DURA-CORE® II** is a high strength corrugated aluminum honeycomb that 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.

**BMS 8-336 Type 1, Class 2 Grade 013, Form B, Style F for SG-3, 2 mil thick material and Type 1, Class 2 Grade 016, Form B, Style F for SG-4, 4 mil thick material**

**PAA STRIKEGRID® CONTINUOUS EXPANDED ALUMINUM FOIL (CEAF)** is the industry's highest-performing lightning-strike dissipation material. Phosphoric acid anodized (PAA) and coated with a proprietary coating, it outperforms all other ductile materials. Decades of operational experience have shown that bond durability between lightning-strike materials and face sheets or surfacing materials is critical to long part life; and for this, PAA-Strikegrid® foil has no equal.



**VALUE-ADDED SERVICES**

TGC is vertically integrated and supplies product from raw materials to finished parts. This includes offering semi-finished materials to complex bonded assemblies and end-item fabrication kits for an entire shipset that are staged for installation. Our in-house capabilities include:

- Special processing of honeycomb core details and bonded assemblies
- Fabricated laminate and panel assemblies
  - 3-, 5-, 6-axis CNC machining
  - 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

For further information, please contact us or visit [www.thegillcorp.com](http://www.thegillcorp.com).

## 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.



**THE GILL CORPORATION**

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