



Airbus Qualified Products



COLUMN STREET, STREET,

t has been more than three decades since The Gill Corporation (TGC) qualified its first proprietary floor panel design with Airbus. Since that time, we have introduced a portfolio of high performance floor panels and cargo liners that support Airbus operators and maintenance providers throughout the world. Although our product designs have evolved as new materials and technologies became available, our priorities remain unchanged. When it comes to establishing design objectives, we continue to turn to the most valuable resource available–our customers.

CHARTER MANUAL

AIRBUS QUALIFIED PRODUCTS

Cabin

<u>Airbus Technical Specification</u> 5360 M1M 000600, Types PC1 and PC3

GILLFAB® 4505 (TYPE PC3) is a high performance floor panel featuring unidirectional carbon reinforced phenolic facings bonded to meta-aramid honeycomb core. Our design capitalizes on the superior strength and modulus of carbon fiber coupled with a low smoke phenolic resin matrix to achieve optimum weight, performance and flammability characteristics. Designed for ease of fabrication and installation, the construction includes a lightweight woven glass scrim on the outer facing surfaces to protect against galvanic corrosion. This panel is approved for use in the high traffic cabin areas of all A318, A319, A320, A321, A330, A340 and A380 series aircraft.

GILLFAB® 4605 (TYPE PC1) is a derivative of Gillfab® 4505 but with thinner facings and lower density honeycomb core for weight savings in light duty areas. This panel is approved for use in the underseat location of all A318, A319, A320, A321, A330, A340 and A380 series aircraft.

Airbus Technical Specification ABS 777 GILLFAB® 1369A020 is qualified for use in interior cabin. For more product info, please see pg 5.



Airbus Technical Specification TL53/5000/79, Types 1 and 2 GILLFAB® 4405 A/B (TYPE 1) is a durable, indentation resistant floor panel made with woven glass reinforced epoxy facings bonded to meta-aramid honeycomb core. Gillfab® 4405B (Ty 2) is identical except a sheet of aluminum foil is bonded to the bottom facing. This panel is approved for use in the cabin areas (high traffic and underseat) of all A300 and A310 series aircraft. Note: For A310 aircraft, only Type 2 is designated for use at Frame 69-80.

One of the most rigorous and predictive tests for in-service durability of a cabin floor panel is the food roller cart test. During qualification testing, Gillfab® 4505 and Gillfab® 4405 were subjected to 120,000 cycles at 127.5 lbs. per wheel and 35,000 cycles at an increased weight of 165.3 lbs. per wheel. Although not required by the Airbus Specification, but to further test durability, these same qualification test panels were subjected to an additional 120,000 cycles at an increased weight of 250 lbs/wheel with no reported damage.

Airbus Technical Specification ADET 0096 Types 1-3

GILLFAB® 5509 is a lightweight, high strength and low smoke floor panel made from unidirectional carbon fiber reinforced phenolic facings bonded to para-aramid honeycomb core. This panel is approved for use in the cockpit, main and emergency electronics bays of A380-800 aircraft.

Airbus Technical Specification AIMS 08 07 001

Over the years we have developed cargo liner repair materials and a repair system known industry-wide as Gillpatch[®].

For Airbus operators we have qualified a repair patch that address the unique differences between laminate sandwich panel repairs under FAR/JAR 25.855 requirements.



AIRBUS QUALIFIED PRODUCTS

Cargo

Airbus Technical Specification

5360 M1M 000 500, Types BCC2, BCC3, CCC1 and MDC2 GILLFAB® 4123 is a high impact and corrosion resistant floor panel featuring woven glass reinforced phenolic facings bonded to meta-aramid honeycomb core. This panel optimizes strength with weight to achieve excellent in-service durability. Gillfab® 4123 is approved for use in main deck cargo areas – freighter and convertible aircraft.

GILLFAB® 4223 (TYPE BCC2) is a high strength floor panel made from woven glass reinforced phenolic facings bonded to meta-aramid honeycomb core. This panel is designed to exceed the increased impact and abrasion resistance requirements of the BCC2 specification, without the addition of an aluminum top sheet. Our non-metallic design offers excellent in-service performance and avoids the potential in-service issues commonly associated with aluminum overlay (e.g. corrosion, delamination, and peeling). This floor panel is approved for use in the bulk cargo areas of all A300, A310, A318, A319, A320, A321, A330 and A340 series aircraft.

GILLFAB® 4523 (TYPE BCC3) is our latest bulk cargo floor panel design offering superior impact and abrasion resistance. This unique construction optimizes the facing and panel properties using a combination of woven and unidirectional glass reinforcements with a TGC proprietary phenolic resin formulation. The resulting impact strength is more than double that of the BCC2 panel and exceeds the Airbus BCC3 specification requirements. Bonded to meta-aramid honeycomb core, the unbalanced construction (0.060" top facing, 0.025" bottom facing) provides exceptional durability on the top panel surface while eliminating the added weight and cost of a symmetrical design. Gillfab[®] 4523 is approved for use in the bulk cargo areas of all A300, A310, A318, A319, A320, A321, A330 and A340 series aircraft.

GILLFAB® 4522 (TYPE CCC1) is a high impact and corrosion resistant floor panel with woven glass reinforced phenolic facings bonded to a meta-aramid honeycomb core. Designed to meet the in-service conditions of a containerized compartment, this construction balances strength with weight to achieve optimal performance. Gillfab® 4522 is approved for use in the containerized cargo compartment of all A300, A310, A320, A321, A330 and A340 aircraft.

Airbus Technical Specification

2550 M1M 0008 00 (Types A-N) for the A300-A320 families V5013SP1803901 (Types A, D, H, L, and P) for A350 5010 M1M 0010 00 (Types A, D, L) for A380

GILLFAB® 4422 is a high impact resistant cargo liner sandwich panel, comprised of a combination of woven glass reinforced phenolic facings with 1 mil Tedlar® overlay, bonded to meta-aramid honeycomb core. The incorporation of S-glass reinforcement yields incomparable impact strength, 20+ times greater than Airbus specification requirements. This panel is manufactured in 9 different types, featuring either 0.013" or 0.020" thick facings, for use in sidewall, ceiling, partition wall, and decompression panel applications. Gillfab® 4422 is approved for use in the cargo compartment of all A300, A310, A318, A319, A320, A321, A330, A340, A350 and A380 series aircraft.





We are proud to offer a full range of cargo compartment liner and flooring products for all types of Airbus aircraft.

We stock a full range of qualified products and are able to deliver worldwide.

Airbus Technical Specification AIMS 05 11 000

GILLFAB 1369A (formerly 1367A) are a high impact resistant cargo liners manufactured using a combination of woven S-glass reinforcement with a low smoke and toxicity phenolic resin system to achieve superior mechanical and physical properties. A 1 mil white Polyvinyl Fluoride (PVF) film overlay on the face side offers surface reflectivity and resistance to cleaning solutions. Gillfab® 1367A (now 1369A) was first introduced more than 20 years ago and has since become the standard for major OEM programs throughout the world. It is available in 9 different types ranging from 0.013" to 0.060" thick. They are approved for use in designated areas of the cargo compartment in A300, A319, A320, A321, A330 and A340 series aircraft.

GILLFAB® 3072 H PROFILE is a woven glass reinforced phenolic "h" profile used in the fabrication and repair of decompression panels. This product enables operators to replace damaged sections of the 'frame', while eliminating the necessity to replace the entire assembly. For decompression panels that exceed the limits of repair, Gillfab® 3072 can be used in conjunction with Gillfab® 4422 to produce a replacement decompression panel. Gillfab® 3072 is available in 4 different types and is approved for use in A300, A310, A318, A319, A320 and A321 series aircraft.

AIRBUS QUALIFIED PRODUCTS

Honeycomb Core

Airbus Technical Specification AIMS 11 01 001 / ABS5035

GILLCORE® HD is a meta-aramid fiber reinforced honeycomb coated with heat resistant phenolic resin to solve most structural design challenges in composite aerostructures when non-metallic honeycomb is preferred. 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 (selfextinguishing) resistant. Gillcore® HD has excellent dielectric properties exhibiting good electrical insulating properties, thermal stability and formability for curve forming.



Airbus Technical Specification AIMS 11 01 004 / ABS5341

GILLCORE® HK is a para-aramid fiber reinforced honeycomb which is coated with heat resistant phenolic resin. It's 25% lighter than meta-aramid with enhanced performance characteristics including strength, stiffness and fatigue. 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. 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).

Airbus Technical Specification AIMS 11 02 001 (DURA-CORE® 5052) / AIMS 11 02 002 (DURA-CORE® 5056)

DURA-CORE[®] is a high performance aluminum honeycomb core that solves light weight structural design challenges and exhibits excellent corrosion resistance in hostile environments, especially salt fog. This core is used for sandwich structures of the control surfaces, such as trailing edge of slats.





Qualified to multiple customers' specifications including engine nacelle suppliers

PAA-CORE[®] is the ultimate aluminum honeycomb core. Our Phosphoric Acid Anodized (PAA) foil treatment process yields unsurpassed corrosion resistance with excellent bonding properties and allows for the bonding of carbon skins without the risk of galvanic corrosion.

One of its distinctions is a high strength to weight ratio. It's been proven over the years to provide critical bond durability between core and skins, critical to long part life, and for this, PAA-Core[®] has no equal. This core is used for sandwich structures of the control surfaces and nacelle structures.

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**.



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.



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