



## PRODUCT DATA SHEET

# GillVANA® 4809G

### DESCRIPTION

GillVANA® 4809G is a damped sandwich panel made from unidirectional carbon fiber reinforced epoxy facings bonded to GillVANA® honeycomb core. The para-aramid / phenolic honeycomb core is coated with GillVANA® resin containing a damped material to provide acoustic benefits, while still meeting physical, mechanical and flammability requirements. Outer panel surfaces feature fiberglass overlay to help protect against galvanic corrosion. The United States Patent #10,933,605.



### APPLICATIONS

GillVANA® sandwich panels are ideally suited for commercial passenger aircraft flooring, sidewalls and ceiling panels delivering a weight-efficient solution of vibration and noise attenuation.



### FEATURES

- Excellent acoustic properties
- Good impact strength
- Excellent machinability and bonding surfaces
- Resistant to galvanic corrosion
- Excellent strength-to-weight and stiffness-to-weight ratios
- Very light-weight and negligible panel deflection under load

### AVAILABILITY

	4809G Type X	4809G Type XI
Panel Thickness, inch	0.40	0.40
Facing Thickness (face/back), inch	0.010 / 0.010	0.020 / 0.020
Length, inch	144 inches	
Width, inch	48 inches	
Honeycomb	GillVANA® core-medium density	GillVANA® core-high density

### CONSTRUCTION

**Adhesive:** Epoxy film

**Core:** GillVANA® honeycomb core

**Reinforcement:** Unidirectional carbon fiber with glass overlay

**Resin System:** Epoxy

### SPECIFICATIONS

- Qualified to BMS 4-20
- FAR 25.853



**HEALTH PRECAUTIONS**

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Safety Data Sheet (SDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. A SDS is available at <https://www.thegillcorp.com/msds.php>.

For industrial use only. Keep away from children. Additional information can be found at: [www.thegillcorp.com](http://www.thegillcorp.com). For sales and ordering information call 1-626-443-6094.

**PERFORMANCE PROPERTIES, TYPICAL**

The following tests are run in accordance with ASTM & The Gill Corporation internal test methods.

TGC Part Number	Unit	4809G Type X	4809G Type XI	Test Method
Areal Weight	lb/ft <sup>2</sup> (kg/m <sup>2</sup> )	0.830 (4.05)	1.06 (5.18)	TGC-GTP 85
Thickness	inch (mm)	0.40 (10)	0.40 (10)	TGC-GTP 86
Long beam flexure load, Ribbon-RTA	lbf (N)	400 (1,800)	950 (4,200)	ASTM D7249 (20 inches support span, 10 inches load span. Specimen size 24 inches x 3 inches)
Deflection at 100 lbf-RTA	inch (mm)	0.370 (9.40)	0.210 (5.30)	ASTM D7249
Long beam flexure load, Ribbon-RTW	lbf (N)	360 (1,600)	900 (4,000)	ASTM D7249 (20 inches support span, 10 inches load span. Specimen size 24 inches x 3 inches)
Panel shear, Ribbon-RTA	lbf (N)	1,000 (4,400)	1,600 (7,100)	ASTM C393 (4 inches support span, midpoint loading, Specimen size 7 inches x 3 inches)
CD peel-RTA	in.lbf per 3 in. width (kgf.mm per 76 mm width)	27 (310)	35 (400)	ASTM D1781
CD peel-RTW	in.lbf per 3 in. width (kgf.mm per 76 mm width)	25 (290)	32 (370)	ASTM D1781
Insert Shear-RTA	lbf (N)	1,300 (5,800)	1,500 (6,700)	TGC-GTP 167 (Test specimen size 8 inches x 3 inches. Hole diameter .455±0.015 inch, and 0.47±0.03 inch distance from specimen edge to the hole center)
Impact strength-RTA	in.lbf (N.m)	20 (2)	45 (5)	ASTM D5420 (Impactor head diameter 0.125 inch)
Stabilized core compression-RTA	lbf/in <sup>2</sup> (kg/cm <sup>2</sup> )	1,800 (130)	2,900 (200)	ASTM C365
Warpage	in/ft (mm/m)	0.025 (2.1)	0.040 (3.3)	TGC-GTP 45
Food cart roller test	Cycles without failure	>160,000 at 158 lb/wheel	>160,000 at 198 lb/wheel	TGC-GTP 73
Flammability-60 seconds Vertical • Self-extinguishing time • Burn length • Drip extinguish time	seconds inch (mm) second	2 2 (51) 0	2 2 (51) 0	FAR 25.853 App. F, part 1a (1) (i)
Flammability-30 seconds 45° angle • Self-extinguishing time • Penetration • Glow time, seconds	seconds  seconds	2 No penetration 0	2 No penetration 0	FAR 25.853 App. F, part 2 (iii)

Figures shown reflect typical values and should not be used as design specifications

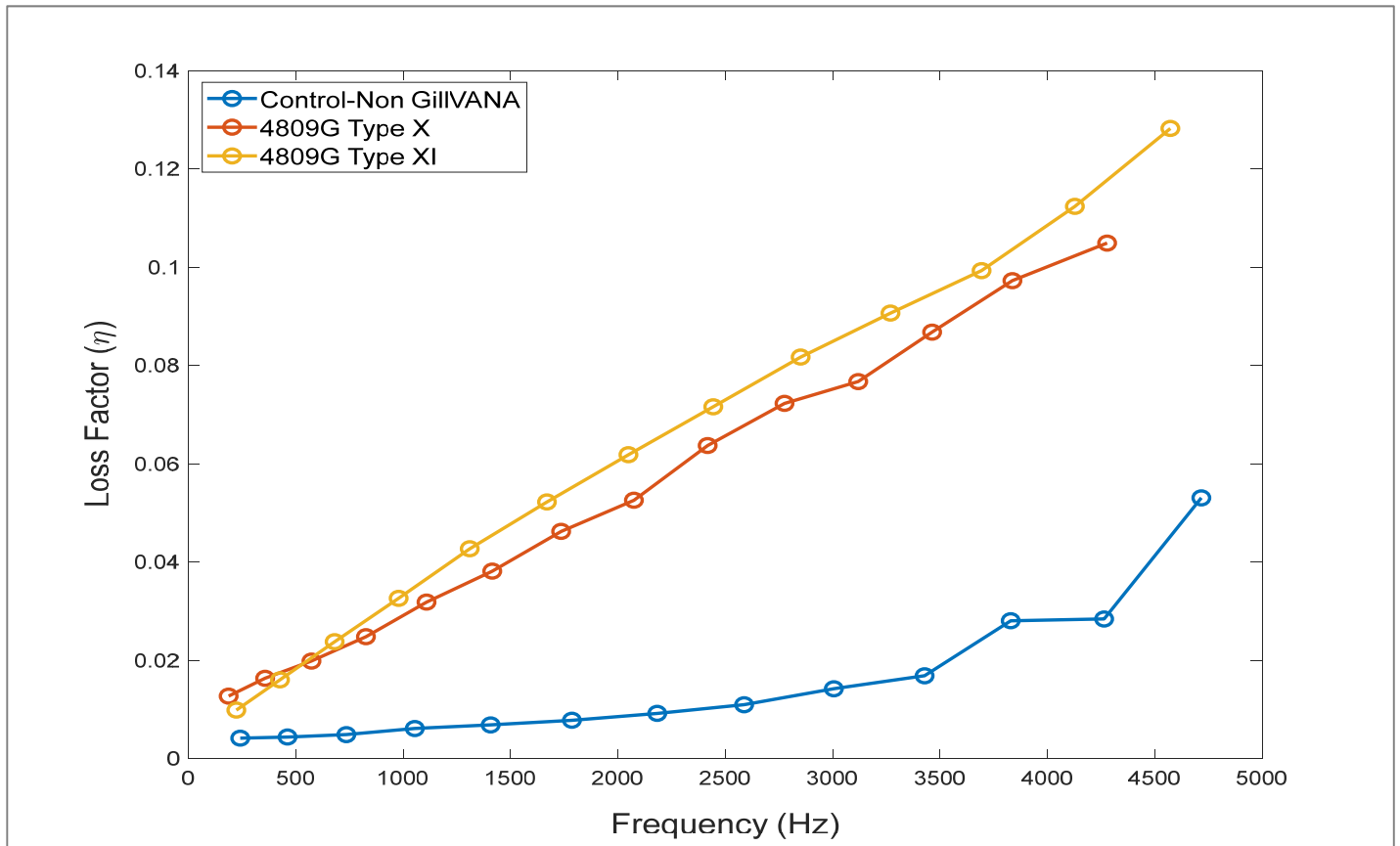
RTA: Room Temperature Ambient

RTW: Sample exposed to 100% relative humidity at 120°F±3 for 30 ±1 days, and tested at room temperature



ACOUSTIC PERFORMANCE PROPERTIES, TYPICAL

The acoustic test is done in accordance with ASTM E756-05. The procedure determination of vibration damping characteristics of sandwich panels.



Figures shown reflect typical values and should not be used as design specifications.

Updated: 06/08/21

All recommendations, statements, values and technical data herein are based on tests The Gill Corporation believes to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. Users shall rely on their own information and tests to determine suitability of the product for the intended use and assume all risks and liability resulting from their use of the product. The Gill Corporation's sole responsibility shall be to replace that portion of the product that proves to be defective. The Gill Corporation will not be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements not contained in a written agreement signed by an officer of The Gill Corporation shall not be binding upon The Gill Corporation. Gilliner® is a registered trademark of The Gill Corporation.