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THE M.C.GILL DOORWAY

"We try hard enough to make it happen"

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*Here's to a
35-Year Collaboration*





For more than 35 years...

MC. Gill flies the

BUT NO GOLD STARS THE FIRST TIME AROUND

M.C. had an opportunity to make a sale to United in 1958. Acting on a sales lead from then Douglas Aircraft Company's (DAC) Interior Design Group he contacted the airline concerning a decorative laminate (golden foil stars pressed between two sheets of plexiglas) for class divider partitions in their DC-6's. This first project fell short when M.C. could not make the foil stars stay flat enough in the finished laminate.



During the in-service test of Gilliner 1066, M.C. carefully examined the liner for puncture and abrasion damage.

WE DID MAKE FRIENDS

In retelling the story, M.C. always stresses the point that the United personnel with whom he was dealing were always courteous, patient, friendly, and understanding. In short, pleasant and cooperative people to work with even though he was unable to meet their requirements.

As a result, he never hesitated to contact them again when he thought he might have something United could use to their advantage. As it usually did, his persistence paid off and he made his first sale of replacement baggage compartment liner to United in 1962 — Gilliner 1066 (polyester resin reinforced with fiberglass cloth). At the outset, Shelby Martin, and for many years thereafter, Lloyd Eber, both engineers in United's Aircraft Interiors group, were impressed with the product. They wrote the specification, and wrote and approved the material requisition for the initial order.

IN-SERVICE TESTING — A VALUABLE SALES TOOL

Actually, the adoption of 1066 was made on the basis of an in-service test United had conducted for the six months prior to the sale. Each time the aircraft was at Los Angeles International Airport (usually once or twice a month), M.C. would dutifully drive to the United maintenance hangar and personally inspect the liner for any damage caused by puncture, shear, abrasion, impact, edge pull out, and the like. After each inspection he would report back to Mr. Martin

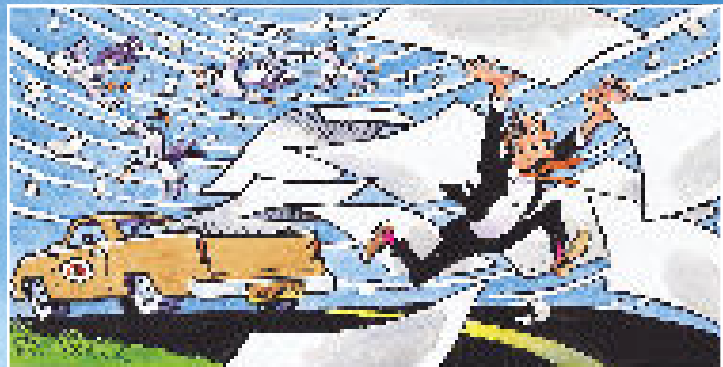


"Friendly Skies" with UNITED

that the liner was holding up well. Six months after the initial in-service test installation, 1066 was adopted, a specification written, and an order was placed.

Gilliner 1066 was used as replacement liner for the original equipment installed by Douglas because, as Mr. Martin said at the time, "We're interested because there's always room for improvement." Lest our readers infer we're making an unfair criticism of our competition, the original equipment was also manufactured for Douglas Aircraft by the M.C. Gill Corporation and met ALL the pertinent DAC specifications. Gilliner 1066 became the replacement material of choice not only by United, but by many of the world's other major airlines, because of its durability and toughness. And, as a result of aircraft service testing, Douglas wrote a specification and also adopted 1066.

The moral is that we're always looking for product improvement, and in a field of rapidly changing technology today's original equipment may not be tomorrow's state of the art. However, our customers are known for their open minds and they are always on the lookout for and ready to make changes for the better.



BEYOND THE CALL OF DUTY

Because it was his first real breakthrough with United, M.C. was unwilling to entrust delivery of the in-service samples to a common carrier. Rather, he loaded the sheets of 1066 onto his own Ford Ranchero pickup truck and headed north to San Francisco, some 350 miles away. The trip was uneventful until he reached the outskirts of the city—in the general vicinity of Candlestick Park. San Francisco Giant players and their fans can empathize with what happened next. A strong gust of wind that seems to continuously swirl in that area picked up several sheets of the cargo liner and scattered them over the freeway. Fortunately, traffic was light and M.C. was nimble. The errant sheets were retrieved undamaged in short order. There is no better testimonial to the durability of Gilliner 1066 and M.C.'s survival instinct... and his desire to satisfy the customer.



Some Things Get Better

That initial sale to United Airlines was the beginning of a business relationship that has lasted for 35+ years, one that has continued to grow and strengthen. Evidence of that came early on when, in 1964, M.C. made his first sale of flooring panels to a Mr. Franklin, the Head of Flooring Structures. One of Mr. Franklin's last acts prior to his retirement was preparation of a specification for and purchase of Gillfloor 5007 (polyester reinforced fiberglass cloth facings bonded to an end grain balsa wood core). He could have taken the easy way out and left the buying decision to his successor but went ahead with the purchase because, in his words, "It couldn't be poorer than what we've got now." And so it was that United had specifications for Gillfloor 5007 and its successors, 5007A and 5007B (higher peel values than 5007A), and has used them to this day.

THE MORE THINGS CHANGE

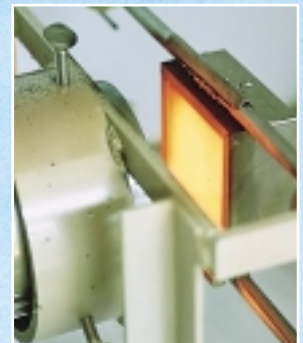
A lot has changed since M.C. Gill's first sale of cargo compartment liner to United Airlines 35+ years ago. Gone are United's DC-6's and 7's along with Gill's personalized deliveries 350 miles away in the company pickup truck; both companies have successfully undergone growing pains and prospered; both are leaders in their particular industries; and, the product mix we provide United has undergone substantial changes.

Two examples come immediately to mind. First, Gilliner 1066 has been replaced at United by Gillfab

1367 and Gillfab 1367A. The M.C. Gill Corporation has become the industry's acknowledged leader in phenolic resin technology and its use as a primary component in construction of cargo compartment liners. Both 1367 and 1367A are phenolic resin-based baggage compartment liners and are original equipment in all Boeing aircraft which make up the vast majority of United's fleet.

LOW SMOKE AND LOW TOXIC EMISSION

These safety characteristics have made the phenolic-based cargo liners the material of choice for original equipment and for replacement parts by commercial airlines. In addition, resistance to puncture damage, edge bearing, and abrasion among other features, have cemented our leadership position.



Among the tests for the phenolic resin-based 1367 and 1367A: the Burn-Through Test and the Smoke Chamber Test... to measure smoke density when the liner is exposed to flame and heat.



With Time



*1367A Cargo Compartment Liner roll stock.
1367A qualifies for Boeing and Douglas aircraft.*

Gillfab 1367 is qualified to Boeing's BMS 8-223, Class 2, Grade B, Types 13 through 70; and, United Airlines SHE 2674. Gillfab 1367A is qualified to BMS 8-223, Class 2, Grade B, Types 13 through 40; McDonnell Douglas' DMS 2419, Class 1 and 2, all Types; and, United Airlines SHE 2674.

ONLY ONE FOR BOTH: BOEING AND DOUGLAS

The obvious advantage with 1367A is that those airlines that operate Boeing and Douglas equipment only need to stock one cargo liner as a replacement part on both types of aircraft. To our knowledge, Gillfab 1367A is the first cargo liner ever to attain dual OEM qualification. Key property values for 1367 and 1367A are shown in Tables 1 and 2 on page 8.



HOW A FLUKE GAVE BIRTH TO A NEW, IMPROVED PRODUCT

It would certainly add to the mystique if we could relate that M.C. discovered 1066 while working late one evening in his laboratory, as a thunder and lightning storm raged outside (*"Quick Igor, the resin"*).

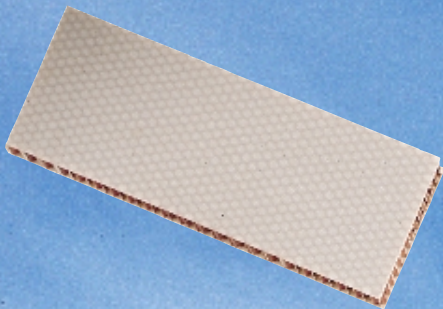
Such was not the case; in fact, it was an accident pure and simple. Bernie, the man who mixed the resin formulation for 1066, was a valued employee and who was, if nothing else, punctual. He liked to go home when his shift was over. On this particular day, he'd started mixing a new batch of resin late in the afternoon and rather than stay after his usual quitting time he chose to speed up his departure by not including one of the ingredients.

Bernie dutifully recorded the omission in his laboratory notes. But somehow one sheet of 1066 was made using the aborted resin formulation. In running the standard quality tests the following day, the R&D Director was astounded to find that the "Bernie Batch" of 1066 was attaining puncture resistance values two to three times greater than ever before. He summoned M.C. and together they reviewed the production records. Ultimately, they thought they found the reason behind the abnormally high puncture values. So they had several more sheets produced using the new "Bernie" resin formulation. Then after conducting further puncture resistance tests their original findings were confirmed.

Thus, a new product was born. Throughout history such errors have often resulted in new or improved products. Perhaps more important than the fact an error was made is that credit should be given to the R & D Director for recognizing the improvement. Too often when results do not turn out as expected, it is less upsetting to regard the readings as a fluke and cast aside the sample.



More Evidence of Change

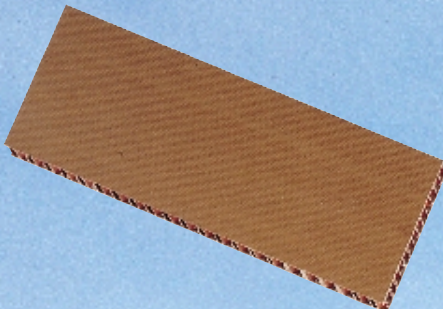


Gillfloor 4417

Although some airlines still use 5007 A, B, and/or C for flooring. United does not. They still buy 5007B, but for bulkhead repair, not flooring. The polyester faced balsa core panel has been replaced by Gillfloor 4417, and Gillfab 4205 and 4323. Gillfloor 4417 is used in UAL's Douglas and Boeing aircraft and 4205 and 4323 in their Airbus fleet segments. The primary

reason for using these panels instead of 5007B is one of weight reduction — as much as one-half, depending on type.

GILLFLOOR 4417 is constructed from epoxy reinforced fiberglass unidirectional tape bonded to a Nomex® honeycomb core. It is qualified to United's SHE 2903 which



Gillfab 4205

Despite the Changes, Some

Through the years, the M.C. Gill Corp. has remained dedicated and a loyal supplier of United Airlines. Likewise, we believe we have been a conscientious supplier. Just as United Airlines is a customer of ours, we too are customers; and we try to treat our customers the way we would like our suppliers to treat us. As a result of our experience we try to emulate a supplier that:

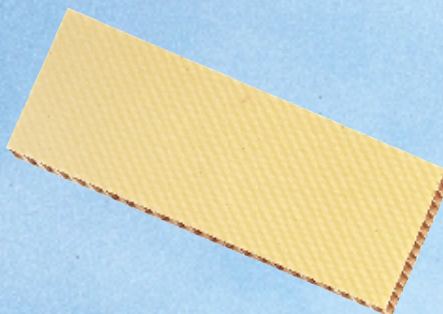
- Consistently offers a quality product
- Provides delivery on time (especially in an AOG situation)
- Offers a competitive price and...
- Is one that we like to work with, who is concerned about pleasing us,

and whom we can count on when we have problems

We will remain loyal to that supplier — there is simply no valid reason not to do so. It's the long range view and it's fundamentally sound.

This philosophy is becoming even more important given the recent trend of reducing the number of suppliers to original equipment manufacturers of commercial aircraft for any given item. It has been our experience that there are several reasons to support this...

- Costs are reduced if there is only one primary supplier
- Quality remains consistent resulting in minimum product monitoring. In



Gillfab 4323



covers McDonnell Douglas Drawing BZZ 7002 and Boeing BMS 4-17. Property values for Gillfloor 4417 are shown in Table 3 on page 9.

GILLFAB 4205 is constructed of phenolic resin reinforced glass with cloth/unidirectional carbon facings bonded to Nomex honeycomb core and is qualified to UAL's SHE 2906.

GILLFAB 4323 is made of woven glass cloth reinforced phenolic resin facings bonded to a Nomex honeycomb core and is qualified to SHE 2907. Both are qualified to Airbus' DA/MBB/AI Tech. Spec. 5360 M1B 000100.

Selected property values for both 4205 and 4323 are shown in Tables 4 and 5.



*A tilt of the
glass to
future
partnering in
user-friendly
products.*

Things Remain the Same

fact, we have always worked with United (and with any customer for that matter) to sort out and remedy the cause of any product shortcomings, and/or suggest alternative products that we believe are more suited to a particular customer's application

- Inventory record keeping is simplified and inventory problems, including availability of physical storage space, are minimized
- Fewer purchase orders have to be prepared, fewer invoices received, and fewer payment checks written

United Airlines, like many other successful businesses, is fully aware of

these pluses. The airline also knows that the M.C. Gill Corporation is the **ONLY** company in its particular niche of the aviation industry that manufactures cargo liner AND flooring panels qualified to ALL of the aircraft United operates, i.e., Airbus, Boeing, and McDonnell Douglas — more than 550 aircraft in all!



TABLE 1 PHYSICAL AND MECHANICAL PROPERTIES OF GILLFAB 1367

Property	Test Method	Specification Minimums*					
		English	(Metric)				
Mechanical**		TYPE 13	TYPE 20	TYPE 30	TYPE 40	TYPE 50	TYPE 70
Edge bearing strength,							
ksi (MPa)	BMS 8-223	24(165)	30(207)	33(228)	35(241)	35(241)	35(241)
Physical							
Weight, psf (kg/m ²)		.11(.54)	.20(.98)	.30(1.47)	.42(2.05)	.52(2.54)	.70(3.42)
Thickness, in. (mm)		.013(.33)	.020(.51)	.030(.76)	.040(1.02)	.050(1.27)	.070(1.78)
Water absorption, % max.	FTMS406-7031	10	10	10	10	10	10
Flammability	FAR 25.853						
60 sec. vertical exposure							
Extinguishing time, sec.		50	50	50	50	50	50
Burn length, in. (mm)		5 (127)	5 (127)	5 (127)	5 (127)	5 (127)	5 (127)
Drip extinguishing time, sec.		No Drip	No Drip	No Drip	No Drip	No Drip	No Drip
30 sec. 45°							
Self extinguishing time, sec.		5	5	5	5	5	5
After glow, sec.		5	5	5	5	5	5
Flame penetration		None	None	None	None	None	None
Oil Burner	FAR 25.855	Pass	Pass	Pass	Pass	Pass	Pass
Flame spread index	BMS 8-223	20	20	20	20	20	20
Impact Strength	BMS 8-223	8(12)	14(19)	16(22)	23(31)	26(35)	36(49)
ft.-lbs. (N-m)							
Climbing Drum Peel Test	BMS 8-223						
in-lbs/3 in width		10	10	10	10	10	10
NBS Smoke Emission	ASTM 662						
D _s @ 4 min., flaming @ 2.5 w/cm ²	50	50	50	50	50	50	
Toxicity (typical)	BMS 8-223						
NO _x , ppm		20	20	20	20	20	20
HCN, ppm		20	20	20	20	20	20
HC1, ppm		150	150	150	150	150	150

*Boeing BMS 8-223, Cl 2, Gr B, Ty 13 through 70. **Tested in warp direction at room temperature.

TABLE 2 PHYSICAL AND MECHANICAL PROPERTIES OF GILLFAB 1367A

Tables 1 through 5 contain property values for Gillfab 1367, Gillfab 1367A, Gillfab 4417, Gillfab 4205, and Gillfab 4323. The first two are cargo compartment liners and the last three are passenger and cargo compartment flooring panels. United Airlines uses these materials as the primary replacement parts throughout their entire fleet of Airbus, Boeing, and McDonnell Douglas aircraft.

Property	Test Method	Specification Minimums*			
		English	(Metric)		
Mechanical**		Type 13	Type 20	Type 30	Type 40
Flexural strength, ksi (MPa)	MIL-STD-401B	–	–	30(207)	50(344)
Flexural modulus, msi (GPa)	MIL-STD-401B	–	–	2.2(15.1)	2.2(15.1)
Edge bearing strength,					
ksi (MPa)	BMS 8-223	24(165)	30(207)	33(228)	35(241)
Bolted joint strength,					
lbs. (kg)	DMS 2419	80(36.3)	170(77.1)	240(108.9)	320(145.2)
Physical					
Weight, psf (kg/m ²)		.11(.54)	.20(.98)	.30(1.47)	.42(2.05)
Thickness, in. (mm)		.013(.33)	.020(.51)	.030(.76)	.040(1.02)
Water absorption, % max.	FTMS406-7031	10	10	10	10
Flammability					
60 sec. vertical exposure	BMS 7230	Pass	Pass	Pass	Pass
Impact Strength,	BMS 8-223	9(12.20)	14(18.98)	16(22)	23(31)
ft.-lbs. (N-m)					
Impact Strength,	DMS 2419	25(33.9)	35(47.5)	45(61.0)	50(67.8)
ft.-lbs. (N-m)					
Tedlar Peel Test, .125" Max.	BMS 8-223	Pass	Pass	Pass	Pass
NBS Smoke Emission					
D _s @ 4 min., flaming	ASTM 662	<50	<50	<50	<50

*BMS 8-223, Cl 2, Gr B, Ty 13 through 40. **Tested in warp direction at room temperature.

TABLE 3 PHYSICAL AND MECHANICAL PROPERTIES OF GILLFLOOR 4417 TYPES I, II, III, IV, V, VI AND DRAWING 69B15779, TYPE V

		TYPICAL AVERAGE VALUES (SPECIFICATION VALUES*)						
PROPERTY	TEST METHOD	Type I	Type II	Type III	Type IV	Type V	Type VI	Type V**
Mechanical								
Long beam	ASTM C 393							
Load, lb.		273 (230)	291 (230)	382 (320)	518 (230)	578 (450)	407 (300)	578 (450)
Deflection, in.		.796 (.85)	.792(.85)	.540 (.85)	.261 (.31)	.435 (.50)	.565 (.60)	.435 (.50)
After humidity exposure:								
Load, lb.		244 (200)	252 (200)	355 (280)	460 (200)	480 (350)	316 (250)	480 (NR)
Panel shear, lb.	ASTM C 393	585 (360)	953 (585)	1086 (585)	840 (360)	1172 (850)	1042 (850)	1172 (1000)
Sandwich peel, in-lb	ASTM D 1781	32 (25)	35 (25)	31 (25)	32 (25)	39 (25)	36 (25)	39 (30)
After humidity exposure:								
Sandwich peel, in-lb		39(30)	52 (30)	49 (30)	50 (30)	49 (30)	49 (30)	49 (30)
In-plane shear, lb/in	BMS 4-17	385(300)	444 (312)	382(360)	408 (NR)	906 (500)	517 (400)	906 (400)
Insert shear, lb-in	BMS 4-17	1839 (840)	1957 (840)	1931 (840)	1719 (840)	2335 (840)	2132 (840)	2335 (840)
Core compression, psi	ASTM C 365	846(600)	2030(1600)	2326(1600)	771(600)	3523(2500)	2597(2200)	3523(1800)
Roller cart test, lb/wheel	BMS 4-17	98	120/158	120/158	98	168/198	158/198	168/198
Number of cycles		83,964*** (80,000)	121,020/38,427*** (120,000/35,000)	120,001/35,083*** (120,000/35,000)	83,804*** (80,000)	125,023/35,396*** (125,000/35,000)	122,853/35,099*** (120,000/35,000)	125,023/35,396*** (125,000/35,000)
Physical								
Weight, psf, max.	BMS 4-17	.515 (.52)	.628 (.64)	.758 (.78)	.637 (.65)	1.006 (1.10)	.771 (.80)	1.006 (1.025)
Impact strength, ft-lb	ASTM D 3029	131 (35)	108 (35)	166 (35)	127 (35)	170 (45)	151 (35)	170 (120)
Flammability	FAR 25, App. F, Part I							
60 second vertical								
Self-extinguishing time, sec.		2.8 (12)	3.8 (12)	7.9 (12)	1.3 (12)	3.2 (12)	6.6 (12)	3.2 (8)
Burn length, in.		2.1 (5)	2.0 (5)	1.8 (5)	2.1 (5)	1.8 (5)	1.8 (5)	1.8 (3)
Drip extinguishing time, sec.		0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
45 degree								
Self-extinguishing time, sec.		1.8 (15)	2.4 (15)	2.8 (15)	2.1 (15)	1.0 (15)	3.3 (15)	1.0 (7)
Penetration		None (None)	None (None)	None (None)	None (None)	None (None)	None (None)	None (None)
Glow time, sec.		0 (10)	0 (10)	0 (10)	0 (10)	0 (10)	0 (10)	0 (10)

*Boeing BMS 4-17

**Drawing 69B15779, Type V.

***No failure

NR means not required

TABLE 4 PHYSICAL AND MECHANICAL PROPERTIES OF GILLFAB 4205

Based on .374" thick panel with .025"/.025" facings and .324" thick core at 6 pcf

Property	Test Method	Typical Values English (Metric)	
Mechanical			
Distributed surface load, lbs. (N)	DA/MBB/AI 5360 M1B 000100		
0.43 in. (11mm) deflection		>789	(3510)
No. permanent set, 0.67 in. (17mm) defl.		>1463	(6508)
Ultimate load		>2203	(9801)
Concentrated load, lbs., without deformation		>192	(853)
Compression fatigue, 2 x 10 ⁶ cycles		Pass	
Shear, lbs. force (N), deflection <0.26in (6.5mm)		>17355	(77200)
Bending fatigue,			
Lower load limit, 34 lbs. (150N)		Pass	
Upper load limit, 337 lbs. (1500N), 2 x 10 ⁶ cycles		Pass	
Roller cart			
120,000 cycles at 128 lbs.			
(54.4 kg) per wheel		Pass	
plus 35,000 cycles at 158 lbs. (71.7 kg) per wheel		Pass	
Insert pull out, lbs. (N) after aging		>1574	(7000)
Physical			
Weight, psf (kg/m ²), max.		0.66	(3.22)
Flammability	DA ATS 1000.001	Pass	
Smoke Density (D _s)*	FAR 25.855		
Flaming - 90 sec.		13	
Flaming - 240 sec.		34	
Non flaming - 90 sec.		1	
Non flaming - 240 sec.		2	
Toxic gas emission	DA ATS 1000.001	Pass	
Heat release*	FAR 25.853 (a-1) App F., Part IV Amend. 25-60		
Peak HHR kw/m ²		44.4	
Total HHR 2 min kw-min/m ²		44.3	
Maximum Service Temperature, °F (°C)		180	(82)

*Typical values obtained by independent test laboratory

TABLE 5 PHYSICAL AND MECHANICAL PROPERTIES OF GILLFAB 4323

Based on .496" thick panel with .030"/.020" facings and .446" thick core at 6 pcf

Property	Test Method	Typical Values	
		English	(Metric)
Mechanical			
Distributed surface load, lbs. (N)	DA/MBB/AI 5360 M1B 000100		
No permanent set		>2434	(10826)
Ultimate load		>3651	(16240)
Concentrated load, lbs., (N), without deformation		>200	(890)
Impact strength, ft-lbs. (N-m)		>9.0	(12.0)
Insert pull out, lbs. (N), after aging		>674	(3000)
Physical			
Weight, psf (kg/m ²)		0.76	(3.70)
Flammability	DA ATS 1000.001	Pass	
Smoke density (D _s)*	FAR 25.855		
Flaming - 90 sec.		51	
Flaming - 240 sec.		83	
Non flaming - 90 sec.		1	
Non flaming - 240 sec.		7	
Toxic gas emission	DA ATS 1000.001	Pass	
Heat release	FAR 25.853 (a-1) App F, Part IV Amend. 25-60		
Peak HHR kw/m ²		43.6	
Total HHR 2 min kw-min/m ²		37.0	
Oil burner	FAR 25.853 (a-1) App F, Part IV Amend. 25-60	Pass	
Maximum Service Temperature, °F (°C)		180	(82)

*Typical values obtained by independent test laboratory

Nothing Happens If It Doesn't



Loading a 40' flatbed trailer with Gillcore® HD Nomex honeycomb, bound for Boeing Seattle.

Our Sales Department will look you right in the eye and tell you that nothing happens until the sale is made.

With a totally straight face, our Production Manager will tell you that nothing happens until the product is made.

With somewhat less validation but with just as much sincerity, the Finance Department will contend that nothing happens until the invoice is paid.

While all this is going on, six men over in our Building 4 just nod very knowingly and a bit smugly. They constitute our Shipping Department and they KNOW nothing happens until the product is packaged, loaded on a truck, and received in good condition by our customers.

Like all other M.C. Gill employees, Shipping Department personnel take a great deal of pride in their work. No matter how much care goes into the manufacture of the product or how closely it is inspected for quality, they know

that unless the product is received in the same condition it left the M.C. Gill plant, the customer will be less than satisfied. Therefore, every effort is made to select the shipping container that will protect the product best until the customer is ready to use it.

As an aside, Shipping was the first M.C. Gill department to become a separate cost center, or in the vernacular of World Class Manufacturing, the company's first "cell". Long ago, M.C. recognized that knowing and controlling costs were imperative if the company was to be viable. The Shipping Department was no exception.



Shipping Department personnel stack sandwich panels prior to marking and packaging.

SHIPPING CONTAINER FUNCTIONS AND TYPES

A shipping container serves three principal functions: 1) Effectively contain and protect the product; 2) Low tare weight to hold freight costs at a minimum; and, 3) Facilitate customer in-house storage and usage.

To accomplish these functions, we use the following three basic types of packaging.

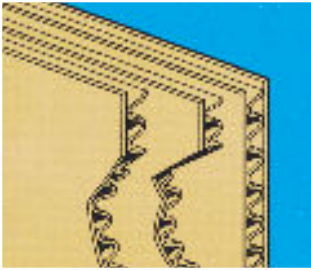
TRI-WALL BOXES

These containers are made of 9/16" thick tri-wall (laminated) corrugated fiberboard. Because most Gill products are inherently light weight and rigid, they provide the strength to the container while the tri-wall protects the product from damage. Compared to a 4' x 12' wooden crate, these boxes reduce tare weight by about 125 lbs., resulting in considerable freight savings. They also provide two to three times better impact and edge protection than wood crating. Because they are completely sealed, the tri-wall containers have improved weather resistance and discourage tampering with the contents. They have high stacking strength — each container can withstand more than three tons in vertical compression over its entire surface area. They are safer to handle — no splinters



The panels are carefully aligned and each is marked with the appropriate part number.

Ship Right!



Cutaway view of the Tri-wall.

or nails. Finally, they are easier to open than wooden crates and can be re-used. M.C. Gill has been using tri-walls for the past 20 years and we believe they are more cost effective and efficient for shipping our standard 4' x 12' flat raw stock that any packaging we have seen.

ROLL STOCK CONTAINERS

M.C. Gill Corp. provides Gilliner 1066, 1076, 1366, and Gillfab 1100, 1367 and 1367A in roll stock lengths up to 150' depending on thickness (up to .045" in most cases).

The purpose of roll stock is to allow our customers to cut exact lengths required, thereby eliminating wasteful drop-offs.

To facilitate handling, M.C. Gill designed a carton based on the same concept as boxes containing household aluminum foil or Saran® wrap. It also has two 4" x 4" runners built into its base, making it forklift friendly. Compact and

mobile, the specialized container takes up a minimum amount of floor or shelf space and is easily moved to the most convenient location on the customer's work floor.

CUSTOM PACKAGING

Although we try to ship our products in one of the above two modes as often as possible, many orders require special packaging. This is increasingly the case as the company provides more and more value-added material (see the Winter 1996 and Summer 1994 issues of the Doorway). In a recent 12-month period, the Shipping Department used almost 100,000 board feet of lumber, consisting primarily of 4 x 4's, 1 x 6's, and 2 x 4's. Add to that almost 23,000 square feet of 3/4" and 3/8" plywood. It is readily apparent that the amount of custom packaging we do is not insignificant; and that amount continues to increase.

MONEY WELL SPENT

During the 12-month period, Shipping Department materials and labor costs added up to hundreds of thousands of dollars — a lot to spend on preparation for shipping. But, our customers' rejection rate due to product damage caused by faulty packaging is **less than one percent of all goods shipped!** We consider that money well spent.



MOISTURE DAMAGE AND HOW TO SPOT IT

Moisture can be very destructive to a stack of sheets or panels. For example, if water penetrates the top of a container, capillary attraction will pull it along each panel interface, making every panel in a container subject to water damage either from staining or corrosion.

Although moisture will not corrode fiberglass, standing water can leave a stain that is impossible to remove, thus ruining the appearance of the product. Moisture most certainly will stain and corrode aluminum. Especially damaging is "traffic corrosion" where the vibrations of movement of goods during transit greatly accelerate corrosion if aluminum is wet or in direct contact with another metal surface.

Our tri-wall containers offer better weather resistance than most packaging alternatives. But no standard shipping container can withstand direct exposure to inclement weather; and we have affixed a special WARNING label that imparts that caution. However, the problem occasionally arises in which our products are moisture-damaged either in transit or after they have reached their final destination.

To help our customers avoid product damage or loss, we affix a "moisture indicator" label (shown above) to all appropriate shipping containers. The black dot will "bleed" onto the white background if the container has been exposed to excessive moisture, thus making the source and timing of water damage easier to determine.



Closing and banding the carton, stenciling contents, instructions and address.



The shipping Supervisor checks the staging and carton count of a portion of the day's shipments.

THE FUNNY SIDE

If all your troubles are behind you, you probably drive a school bus.

★★★★

A doctor can bury his mistakes, but an architect can only advise his client to plant vines.

★★★★

You're never too old to learn nor too young to know it all.

★★★★

Middle Age is that time in life when you're between "Why not?" and "Why bother?"

★★★★

Take heart: If it weren't for the last minute, some things would never get done at all.

★★★★

Overqualified: You didn't get the job, but somehow you feel good about it.

★★★★

We've all known people who are like blisters — they never show up until all the work is done.

★★★★

Guest to desk clerk: "Is there a florist in the hotel. I want to send some flowers to your switchboard operator." Desk clerk: "How nice, she'll be thrilled." Guest: "Thrilled? I thought she was dead."

★★★★

Some people don't hesitate to enter a battle of wits completely unarmed.

★★★★

If you eat something and no one sees you, it doesn't have any calories.

★★★★

If you can smile when things go wrong, you obviously have someone else to blame it on.

★★★★

Only in America could fast food restaurants and fast weight-loss programs succeed.

★★★★

"When George Washington was your age, he was working hard as a surveyor," said the angry father to his lazy son. "When he was your age, he was President of the United States," replied the son.

★★★★

If you think there is good in everyone, then you haven't met everyone.

★★★★

Trivia

63 percent of American men believe "the country would be better off" if more members of Congress were women.

★★★★

Chances are one in three that an American adult cannot name any country the U.S. fought against in World War II.

★★★★

For every job lost in California's aerospace industry in 1995, two new ones became available in the state's film industry.

★★★★

The herring gull has doubled its population every dozen years since 1900.

★★★★

The CEO of IBM makes \$1,410 an hour.

★★★★

A bird must fly an average minimum speed of 11 miles per hour to stay aloft.

★★★★

A pulicologist's area of expertise is fleas.

★★★★

Olympus Mons, on the planet Mars and more than three times higher than Mt. Everest, is the largest known mountain in the solar system.

★★★★

An ostrich can run about 40 miles an hour.

★★★★

Jacob German, a New York City cab driver was the first motorist arrested in the U.S. for speeding. He was clocked at 12 miles per hour.

★★★★

A Japanese study found that top management knows just four percent of the problems in a company; supervisors know 74 percent; and (surprise) line workers are aware of all of them.

★★★★

A public sector employee earns an average of 30 percent more per hour than his private-sector counterpart.

★★★★

A snowfall was recorded in the Sahara Desert for the first time on February 18, 1979.

★★★★

The first documented UFO sighting was in 1896.

★★★★