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# INNOVATIONS FOR THE FUTURE



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The Gill Corporation is a pioneer in the field of innovative, lightweight advanced composite solutions. Our scientists are committed to addressing customer requirements while offering excellence in product performance. This begins with the base formulations of our resin systems.



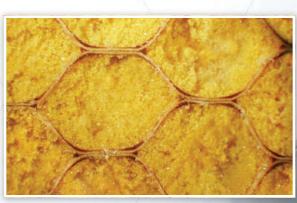
Vertical integration of resin mixing, prepreg, adhesive and core manufacturing has been key to our ability to tailor the best solutions to the challenges our customers encounter. The Gill Corporation's research and development (R&D) team continues the long tradition of innovation in the development of forward-thinking product

development while maintaining strong technical support of existing products. We believe that a winning product begins with understanding and identifying unmet customer needs and partnering with our industry counterparts to develop value-added products that improve performance while reducing operating costs.



The Gill Corporation's team of scientists is vigilant about making sure our products meet stringent flammability requirements while reducing the use of hazardous chemistries, and we are particularly interested in the use of alternate resins and flame retardants to enable products that challenge the norm. The R&D team continues to explore lighter-weight solutions in conjunction with those critical flammability and mechanical requirements, while adding new functionality such as acoustic dampening and thermal insulation through our GillVANA and GillFISTS product lines.

We are excited to be in the qualification process with a major OEM for our GillVANA technology, contributing to a quieter future flying experience for commercial passengers. The shareholders have invested in new, larger-scale equipment for this product line which translates into additional capacity for other yet-to-bereleased "quiet" qualifications in the future.



Close up of GillFISTS product.



Not only do GillVANA and GillFISTS products add functionality, the processes used to create them are environmentally friendly, with an eye towards growing "green" future product line chemistries.

The R&D team works hand in hand with customers worldwide to craft non-traditional materials, and we offer custom development when an existing product needs modifications in order to meet

requirements. The Gill Corporation is a nimble company that can quickly adapt an "off-the-shelf" product to meet a change in requirements. Plus, if the initial requirement isn't well-defined, we work with the customer on the definition as well as the product. Sometimes you're not exactly sure what you need for a product to "work," but you know *for sure* when a current material is *not* performing as expected. We've



found that partnering on small problems can lead to big solutions, so we approach every opportunity presented as a chance to show what we can accomplish together.

If you're an aftermarket customer, be assured that The Gill Corporation R&D team can support your needs, as well. The aftermarket segment is an important part of our business, and we work closely with our dedicated aftermarket sales team to ensure

our products work in the field as required. For example, we are testing new insert types and edge fillers to make sure they are compatible with our materials.

Throughout 2017 our experienced R&D technicians clocked valuable hours in repair shops demonstrating insert installation. We routinely ensure that repair shops are capable of fulfilling the mechanical capability of our panels with in-house





The shareholders have a mandate to increase the R&D department's capabilities and capacity, by investing in both personnel and equipment. The R&D department now includes 20 highly skilled specialists, spread across a variety of R&D projects; an increase of 30 percent in the last three years. This includes 12 degreed chemists and engineers – several with advanced degrees.

# Recent capital investments in much-needed equipment is translating into expanded capabilities:

- Fixtures to test acoustic beam specimens
- FTIR (Fourier Transform Infrared)
- NIR (Near-Infrared)
- RAMAN (a spectroscopic technique used to observe vibrational, rotational, and other low-frequency modes in a system)
- 3D non-metallic printing
- 3D microscope for improved surface analysis
- High-temperature oven
- 5-gallon reactor for formulating
- Two UTMs (Universal Test Machines)

Whether you're an OEM, aftermarket or a nonaerospace related customer, our dedicated team of scientists, technicians and support personnel are eager to work with you.

In business, there is no "one thing" that guarantees success. At The Gill Corporation we continue to invest in our employees, equipment, facilities and new technologies so we can stay at the forefront of advanced composites manufacturing.



We embrace our role as innovators of new materials, processes and technologies and we welcome you to join us on this journey.



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## **Real Signs**

# SIGN IN A SHOE REPAIR STORE IN VANCOUVER THAT READ:

"We will heel you. We will save your sole. We will even dye for you."

#### AT AN OPTOMETRIST'S OFFICE:

"If you don't see what you're looking for, you've come to the right place."

#### **ON A PLUMBER'S TRUCK:**

"We repair what your husband fixed."

#### AT A CAR DEALERSHIP:

"The best way to get back on your feet – miss a car payment."

#### **IN A CHICAGO RADIATOR SHOP:**

"Best place in town to take a leak."

#### **OUTSIDE A MUFFLER SHOP:**

"No appointment necessary. We hear you coming."

# IN A VETERINARIAN'S WAITING ROOM:

"Be back in five minutes. Sit. Stay."

#### AT THE ELECTRIC COMPANY:

"We could be delighted if you send in your payment on time. However, if you don't, YOU will be de-lighted."



## **Betcha Didn't Know**

#### THE WHOLE NINE YARDS

American fighter planes in WW2 had machine guns that were fed by a belt of cartridges. The average plane held belts that were 27 feet (9 yards) long. If the pilot used up all his ammo, he was said to have given it the whole nine yards.

#### **IRONCLAD CONTRACT**

This came about from the ironclad ships of the Civil War. It meant something so strong it could not be broken.

## PASSING THE BUCK / THE BUCK STOPS HERE

Most men in the early west carried a jack knife made by the Buck Knife Company. When playing poker it was common to place one of these Buck knives in front of the dealer so that everyone knew who he was. When it was time for a new dealer, the deck of cards and the knife were given to the new dealer. If this person didn't want to deal he would "pass the buck" to the next player. If that player accepted then "the buck stopped there."

#### **HOT OFF THE PRESS**

As the paper goes through the rotary printing press, friction causes it to heat up. Therefore, if you grab the paper right off the press, it is hot. The expression means to get immediate Information.

#### **RIFF-RAFF**

The Mississippi River was the main way of traveling from north to south. Riverboats carried passengers and freight but they were expensive, so most people used rafts. Everything had the right of way over rafts which were considered cheap. The steering oar on the rafts was called a "riff" and this transposed into riff-raff, meaning low class.

#### **SLEEP TIGHT**

Early beds were made with a wooden frame. Ropes were tied across the frame in a crisscross pattern. A straw mattress was then put on top of the ropes. Over time the ropes stretched, causing the bed to sag. The owner would then tighten the ropes to get a better night's sleep.

#### **COBWEB**

The Old English word for "spider" was "cob."



#### **SHOWBOAT**

These were floating theaters built on a barge that was pushed by a steamboat. They played small towns along the Mississippi River. Unlike the boat shown in the movie "Showboat," they did not have an engine. They were gaudy and attention grabbing which is why we say someone who is being the life of the party is "showboating."

#### **OVER A BARREL**

In the days before CPR, a drowning victim would be placed face down over a barrel and the barrel would be rolled back and forth in an effort to empty the lungs of water. It was rarely effective. If you are over a barrel, you are in deep trouble.

#### **BARGE IN**

Heavy freight was moved along the Mississippi in large barges pushed by steamboats. These were hard to control and would sometimes swing into piers or other boats. People would say they "barged in."

#### **CURFEW**

The word "curfew" comes from the French phrase "couvre-feu," which means "cover the fire." It was used to describe the time of blowing out all lamps and candles. It was later adopted into Middle English as "curfeu," which later became the modern "curfew." In the early American colonies, homes had no real fireplaces, so a fire was built in the center of the room. In order to make sure a fire did not get out of control during the night, it was required that, by an agreed upon time, all fires would be covered with a clay pot called a "curfew."

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