Britec Tooling,

State-of-the-art technology in mold manufacturing.

Plaquimet presents Britec Tooling, its flagship product in mold making, which came to change the current concept of mold manufacturing.

Conventional Molds

Nowadays the great majority of companies make their molds using the conventional resins of the Ortophtalica and Gelcoat type with low thermal resistance. The molding process slows down, since it is necessary to apply from 1 to 2 layers per day, depending on the exothermic reaction of the resin and its high linear contraction. This situation generates high labor costs and delays in production schedules. In addition, the molds do not reach a high cosmetic quality and often present low durability.

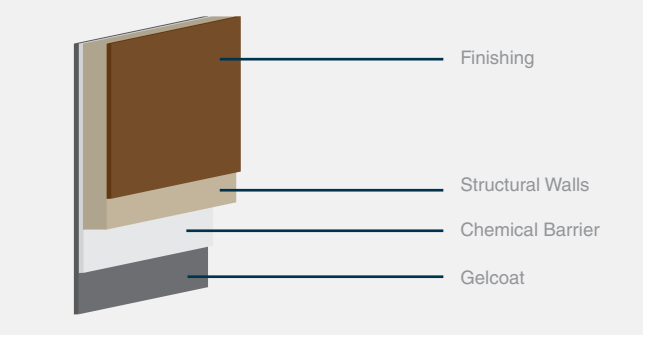
New Britec Tooling concept

The first step in obtaining a good mold quality is to know what the Gelcoat Heat Distortion Temperature (HDT) is. This is a very important factor, because when working with this mold in the future, it will be constantly subjected to the heat generated by the resin´s exothermic reaction.Taking into account the size of the piece, the temperature can vary from 40 to 80 degrees. When the Gelcoat has low thermal resistance, degradation occurs, generating cracks.

	BRITEC TOOLING	Competing Product 1	Competing Product 2	Competing Product 3
Heat Distortion Temperature HDT(1,82 MPa) °C	130	95	80	90

Britec Tooling *has 3 colors: Green, black and orange.*

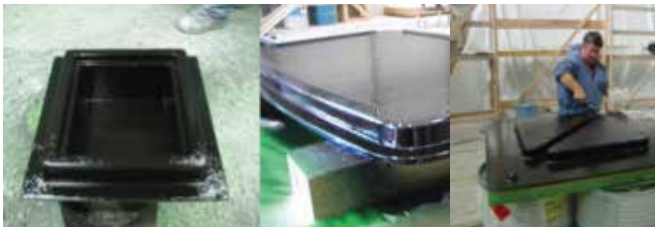
The second step is to understand that even when working with a Britec Tooling product with high thermal resistance , the structure must also have the same performance. Some companies are used for starting the laminating process using conventional Orthophthalic resins at this precise point, which is a serious mistake. Others apply a layer of veil and do not worry about the quality of the resin regarding the Temperature of Distortion (HDT). The first layer is one of the most critical parts of the process, since this will give the Britec Tooling film its whole structure. It will also provide thermal and mechanical structuring and molding. We call this layer chemical barrier.



The chemical barrier can be built in 2 ways:

Surface Veil with Swancor 907 resin or BritecGuard.

BritecGuard can be applied as a conventional Gelcoat, thus reducing all the operating time of the surface veil laminate. You will have much chemical barrier. More guarantee that there will be no bubbles between the Britec Tooling films and the chemical barrier.



***BritecGuard** has 2 colors: Black and Blue.*

It will be this layer that will prevent the mold, over time, from suffering deformations resulting from the exothermal reaction exhibited during the process and the forces of traction and flexion suffered by the mold.

After the construction of the Chemical Barrier, the building of the structure must begin. In this process, the vast majority of companies invest a lot of operating time, since they can apply from 1 to 2 layers per day at most. This operation needs to be done, since conventional resins have high contraction, then the mass is reduced to generate less exothermic reaction and thus less contraction.

With Britec Tooling Low Profile technology, you can build the mold structure in just one day. This operation is possible since it is a resin with 0% shrinkage, therefore it does not alter the dimensional of the mold, besides being a special resin of High Thermal Resistance (HDT) and mechanical properties.

With Britec Tooling Low Profile technology, you can build the mold structure in just one day.

In addition to being highly efficient, Britec Tooling Low Profile will give your mold an excellent better cosmetic finish, since it does not present deformations or appearance of glass fiber.

BRITEC

- High Thermal Resistance (HDT)
- Increased mold durability
- More aesthetic finishing
- High Quality of the final product
- Reduced time and cost in molding process

TRADITIONAL SYSTEM

- Low durability
- Large deformation through its use
- Several repairs due to wear and tear
- Molds get damaged more easily
- High operating cost

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