



INTERPLASTIC

CASE

history

The Successful Matrix

A & F Marble, Inc.

Volume enhancing resin delivers profit enhancing production

Created exclusively by Interplastic Corporation, these unique Silmar® volume enhancing resins increase production volumes, decrease part weight and save money. The beauty of the volume enhancing resin is its simplicity. A casting manufacturer merely exchanges the resin they were using with the volume enhancing resin. Some find it hard to believe it can be that simple but it is. And the “profit enhancing production” they receive is impressive too.



The secret is in the air...

Air: friend or foe?

Large air bubbles in a resin matrix can create voids that appear as dark spots or blemishes on the part's surface and can lead to premature failure. However, Silmar volume enhancing resins are designed to hold microscopic air and uniformly disburse it. The tiny air bubbles reduce the amount of matrix required to make the same number of parts, thereby reducing cost. Manufacturers have reported up to 16 percent in total raw materials savings by using these resins.

The resins also eliminate the need to back patch, a common cosmetic repair done to remove blemishes caused by large air bubbles rising to the back side of the part being manufactured. Eliminating back patching saves additional manufacturing time, material, and labor.

The micro encapsulated air also makes parts lighter. As long as the part thicknesses are within spec, the lighter weight does not compromise the part's physical performance. Interplastic Corporation's Fort Wright Research and Development laboratory has conducted exhaustive physical testing on products made from Silmar volume enhancing resins and has confirmed excellent performance characteristics.

Since the part is less dense, shaping the edges and drain areas of the units with electric/pneumatic grinders is easier, making the installation faster too.

The Successful Matrix

A & F Marble (formerly Fontana Marble, Inc.), Rialto, California, is a typical success story for Silmar volume enhancing resins. This cultured marble manufacturer was approached by Joel Hartman, an Interplastic Corporation sales representative, with the new resin system as a means to lower production costs. Hartman posed the simple question, “would you like to make more parts with the same amount of resin without sacrificing quality, changing equipment or processes?”

They were intrigued enough to evaluate the resin...

Proving the Claim

To test the claim that more parts may be produced from equal amounts of matrix made with volume enhancing resins, A & F Marble used their auto casting machine to produce end splashes. First, parts were made using SIL94BA-2026A, which was the conventional resin they used at the time. Then parts were made using the Silmar volume enhancing resin, SIL94BA-1921S. The auto casting machine’s mixing ferocity accentuates the volume enhanced resin’s ability to microencapsulate air. Additionally, the filler used by A & F Marble has a relatively small particle size and that leads to an especially high amount of microencapsulated air. The parts were prepared in identical fashion but the results were quite different. The back sides of the volume enhanced part had fewer large air bubbles and it was slightly brighter. These parts were sent to Interplastic Corporation’s Fort Wright, Kentucky, Research and Development Laboratory for further analysis.

An 18.8 percent weight savings was calculated at Interplastic Corporation’s Fort Wright laboratory for A & F Marble. This savings convinced Fernando Rebolledo to switch to the volume enhancing resin. Rebolledo is one of A & F Marble’s owners and its plant manager. Nine months later, Rebolledo, reports an even slightly higher volume savings – 20 percent in actual use. Rebolledo also says the physical performance and overall quality of their products remains excellent.

“We were surprised and pleased with the production increases we got by just switching to the volume enhancing resin,” says Carmen Lopez, Administrative Assistant, A & F Marble. “Obviously, the new resin helps make us more profitable. The fact that we did not have to change any equipment or retrain any of our employees is a bonus.”

The majority of A & F Marble’s products are sold to West Coast Countertops, (the former owner of Fontana Marble), and installed in residential and commercial bathrooms.



The resin matrix is checked for consistency by Fernando Rebolledo at start up.



Colorant adjustments are made for perfect veining.

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