

CULTURED STONE NEWS

Fall 2005

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ACS Expands Featherlite® Line!

Beginning September 2005, ACS has some new light weight filler options in the Featherlite product line. Designed specifically for the cast polymer market, these products are formulated to optimize the weight reduction benefits while maximizing filler loading to yield cost effective light weight products.

Ready for release are the:

- **Featherlite 20** (FL 20), offering a 20% weight reduction.
- **Featherlite 30** (FL 30), offering a 30% weight reduction.
- **Featherlite 50** (FL 50), offering a 50% weight reduction.



What the name implies—is what the customer gets. Unlike some light weight filler products on the market today, which offer less than advertised results, the new line of Featherlite products offered by ACS is exactly what the consumers will get. This is due to our on-going quality control efforts, which demand superior product performance.



All of the Featherlite blends are bright white in color and may be used as a substitute for most cultured marble fillers. Additional benefits include:

- Cooler Exotherm—Less Mold Stress.
- Reduced Cracking During Cure.
- Improved Thermal Cycling Results.

In addition to these benefits, it's important not to overlook the practical benefits of fixtures that weigh less than a typical piece of filled material. Lighter units mean an overall increase in the ease-of-handling and transporting. Reduce fixture weight also decreases the labor required—which reduces labor install costs and ultimately possible worker compensation claims that arise from the strain of heavy lifting.

With distribution points in Alabama and Arizona, the new Featherlite products are priced competitively without sacrificing quality. For more information, please contact our office.

Greg Novak, President

Trade Shows

IBEX October 19–21, 2005

International Boatbuilders
 Exhibition & Conference
 Booth #2236
 Miami, Florida



ACS continues to market the high performance Crystic Crestomer marine adhesives, which are distributed in the U.S. for the U.K.-based company, Scott Bader.

ITSS November 11–13, 2005

International Tile & Stone Show
 Booth #1961
 Las Vegas, Nevada

This is the second year that ACS is participating in the International Tile & Stone Show. In addition to this being a new venue for ACS, it will also be highlighting ACS's natural and engineered stone adhesive—Stoneweld. For more information on Stoneweld, or to request a sample, please visit us at the ITSS show or call 1.800.669.9214.

Veining Solid Surface *Cont. from pg. 2*

Step Five: Table Pour.

Once the veined look has been accomplished, the matrix is ready to pour. Starting at one end of the table (figure 6), pour matrix out as you move along the table, moving back until the starting point is reached. As the matrix settles on the table, it will continue to create effects within the matrix. A hand paddle may be used to alter the vein pattern. Figure 7 shows the air releasing. The result of this can be seen in figure 9.

Step Six: Matrix gel.

As mentioned in step three, it is important for the veining effect that the matrix gels in 20–30 minutes. This allows for the proper effect.

Step Seven: Final product.

Once fully cured, that sheet may be removed from the table. Figures 9 and 10 show the unique differences between the table side and top side of the sheet. Sanding/polishing may be done per desired results. For more pictures and video clips on veining solid surface, visit our web site at www.acstone.com/techinfo.html. Enjoy your creations!

Don Hay, Central U.S. Sales Manager

The cold weather season is upon us and as all fabricators know, the indoor temperatures drop as well. Due to these lower shop temperatures, special considerations should be taken into account when using solid surface adhesives.

In all reactive adhesives high temperatures increase the cure rates while lower temperatures slow the cure. This is true for all families of urethanes, epoxies, silicones and acrylics.

Our data shows that Acrybond™ with an open time (the amount of time available before adhesive begins to react) of twelve minutes and fixture time of thirty minutes at room temperature (standard room temperature being 77° F), is retarded to an open time of approximately twenty-five minutes and fixture time of an hour at 65–67° F. Below 60° F the curing time is increased—to as much as several hours—and may cause undesirable results, such as incomplete cure.

John Emadipour
Director of Technology

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Q & A

Q: "How do I seam a sprayed piece of Poly Stone™ material?"

A: Treat it just like solid surface. Use a router with a carbide bit and then dry-fit the pieces. After finding an inconspicuous seam, glue parts with Acrybond™.

Q: What's the typical shelf life of Acrybond?

A: If stored between 50° and 70° F, the typical shelf life is one year from the date of manufacturing. ACS advises that all adhesives should be stored in a refrigeration unit.

Q: Do I have to mix the Poly Stone and resin the night before I spray?

A: No, you do not have to pre-mix Poly Stone with the resin ahead of time. You can mix and then immediately spray your material on demand.

Q: Do I have to mix my Poly Stone by weight or can I mix by volume?"

A: No. You should mix by weight and not by volume with Poly Stone. Unlike most thermoset chips on the market, which may have a higher density, Poly Stone thermal plastic chips require less product when mixing by weight instead of by volume. This in turn insures a proper mix ratio resulting in a cost savings.

Veining Solid Surface

At ACS, we are often asked how to create the beautiful veined look in solid surface material that mimics nature's own marble so closely. The following will describe step-by-step instructions on creating beautiful textured looks using typical materials.

The following is an ingredient list to make a 250 lb. batch of variegated ingot as seen in this demonstration.

- Fumed silica 0.13 lb.
- Catalyst 1.45 lb.
- Liquid pigment (espresso) 0.20 lb.
- Liquid pigment (terra) 0.20 lb.
- Liquid pigment (adobe) 0.20 lb.
- OC-1500 130.15 lb.
- Resin 114.33 lb.
- White pigment 3.35 lb.

Step One: Compile base matrix material.

- ACS's OC-1500 ATH
- White pigment
- Resin

The photo to the right (figure 1) shows a matrix mix with about a 46% resin mix. Prepare the onyx, pigment and resin as any other ATH mix. Put in vacuum mixer for approximately eight minutes. While base matrix is mixing, proceed to step two.

Step Two: Prepare veining matrix .

- Resin—quantity varies, but 280 mg is a good starting point (figure 2) per pigment cup.
- Fumed silica—divide into three separate cups, equal parts (figure 2). Add to resin cups already prepared.
- Pigment—It is recommended to have three pigment colors ranging from subtle, metallic, and high-contrast color. Have each color measured in separate cups.
- Catalyst—In separate cups, prepare a 1.8% MEKP for each pigment container.

Step Three: Catalyst.

- Mixing Pot—When the large pot of base matrix is mixed, add appropriate amount of catalyst to allow for a 20 minute gel time, using a MEK peroxide catalyst—mix with vacuum for three to four minutes



Figure 1: Base material matrix mix.



Figure 2: Pigment material preparation.



Figure 3: Catalyze base matrix.



Figure 4: Catalyzed pigment cups.



Figure 5: Add pigment to base.



Figure 6: Mix, but do not blend.



Figure 7: Pour matrix onto table. Spread/ swirl with paddle to enhance look as desired.

- (figure 3).
- Pigment Cups—As the pot is mixing, promptly add catalyst to the different pigments previously prepared and mix thoroughly (figure 4).

Step Four: Colors.

- Add colors (figure 5) to pot as shown in photo. Do not mix each color in as you add it to the pot. Instead, just pour them

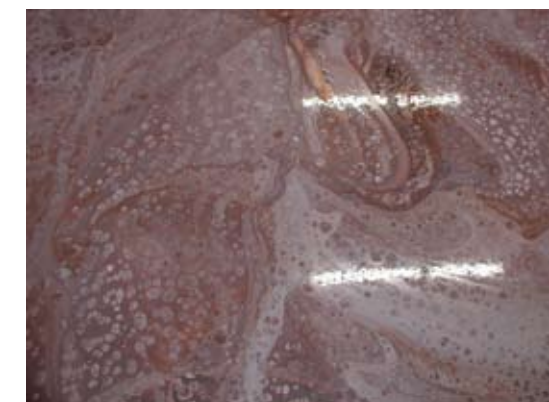


Figure 8: Air release creates additional patterns.



Figure 9: Table-side, cured product (backside).

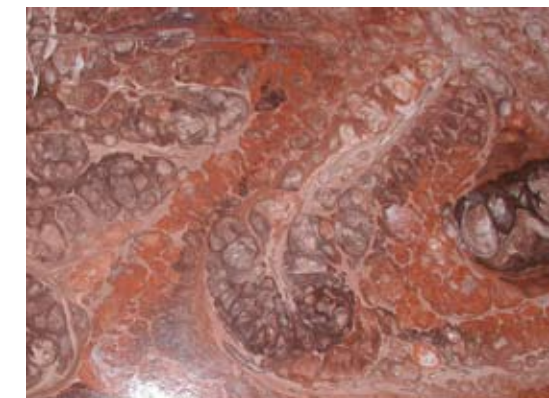


Figure 10: Top-side, cured product.

- in next to each other.
- Hand mix well without over mixing using deep circular strokes pulling white from bottom (figure 6). The goal is to create veins of the colors through mix.
- **Do not turn the mixer back on.**
- A vacuum may be pulled (with no mixing other than the hand paddle) for an additional 30 seconds to assist in air release, if needed.