A PLASTERING TECHNIQUE WHOSE TIME HAS COME

A decade has passed since Maxit appeared on the stucco scene. It featured silo packaging and mixing of stucco (Portland cement plaster). Silos would be hauled to job sites, water added, and plaster spray applied to walls and soffits.

The Techniques and Comments evaluation rating on a scale of 10 at that time was about 2. No report was published. This was based on observations of jobs done with the new system, talks with plastering subcontractors who used the technique, interviews with owners and architects who had approved the method.

Times change. Maxit is no longer a new idea (it wasn’t 10 years ago, either). It has evolved like a butterfly leaving a cocoon. It has completely turned around so that today it rates at close to 10 on the T&C evaluation scale.

The new rating comes from observation of many recent applications, talks with plastering contractors about results, talks with plasterers about workmanship, and the fact that a week ago the northern California plant had just 5 silos on hand from its total of 77.

Maxit also recently changed its name to BMI Products. BMI and Dryvit have teamed up for the BMI/Dryvit Portland Cement Stucco Program, and with STO Industries for the BMI/STO Portland Cement Stucco Program.

We do our homework for subscribers only. We have no relationship with producers.

SAND QUALITY NO PROBLEM HERE - BMI MANUFACTURES ITS OWN SAND

Our research included a visit to the BMI plant in Milpitas, CA. We had a lot of questions after hearing some of the laudatory comments from plastering contractors and builders.

We were impressed with the sand formulations possible. Different formulations for different applications. Sand is clean, without those things that lead to cement/sand reactions.

It was explained that the only thing added at job sites is water, and that is controlled in such a way that the final mix of the day will be identical to the first.

This will help solve many of the “dirty sand” headaches that have plagued the industry for so long, in different areas with different sands.

BMI/DRYVIT STUCCO PROGRAM COMBINES PRODUCTS OF BOTH FIRMS

BMI plaster is referred to as BMI 690 Base. It is, unlike made in the field stucco mixes, a uniform quality sanded plaster base blended in state-of-the-art facilities. It must be specified with glass fibers, and can be delivered in 90-lb. bags or bulk delivered in the silo system containing an integrated continuous mixer. (Local mixing must be by BMI D-20 or D-30 mixer.)

Dryvit textures are pre-blended 100% acrylic integrally-colored finishes. All Dryvit finishes are suitable for BMI stucco, including DPR Finish, Weatherlastic, E-Finish, Ameristone, Terra Neo, Stone Mist, Lymestone, and Custom Brick.

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PLASTER APPLICATION TECHNIQUES
CHANGE SLOWLY - BUT THEY DO CHANGE

It's been more than a half century since the plaster machine was introduced. Not readily accepted, it eventually became the standard for application of plaster, particularly stucco.

A number of machines appeared, but the big winner in popularity was the Tommy Gun, invented by Tommy Thompson. It has a marvelous history and remains a gun of choice.

The silo system featured in this issue of *Techniques and Comments* may well be the newest innovation in plaster application. We chose to feature it for subscribers because we feel it is a big part of the future for stucco.

Environmentally, it is unbeatable. It solves the sand problem, delivers a uniform mix all day long, requires little space in which to operate, and does not increase application gross costs.

When one considers that far-sighted firms like Dryvit and STO team up with the technique, it becomes apparent that the technique has real value and reliability.

*Techniques and Comments* prides itself on not only knowing "what's happening now," but staying ahead of "what's happening now." Our predictions have not missed the mark.

We especially like the idea of little or no debris at the job sites. Builders, architects, and owners will appreciate this aspect of the technique.

Warranties for 5-year and 10-year periods are available from both Dryvit and STO when their finishes are applied over a Maxit 690 base material. STO also offers a 7-year warranty.

There is no warranty against cracking, but our experience with finishes manufactured by both Dryvit and STO tell us that, properly applied, the finishes will perform splendidly for many years. *(See issues 11 and 80)*

PHOTO OF SYSTEM

Here's a photo of the Maxit silo. It is 8-ft. x 8-ft. x 27-ft. high. All that's added at job site is water, and it is controlled for every mix. Special trucks make deliveries.

FOR CONVENTIONAL WORK
SPECIAL MIXERS ARE AVAILABLE

Plaster work where the silo is not appropriate can be done conventionally using a special mixer available in large and small sizes as shown here. Basecoat material is delivered in 90 lb. sacks and mixed in one of the machines just as done customarily.

EFFLORESCENCE IS EASILY REMOVED WITH C L R OR DILUTE PHOSPHORIC ACID

Efflorescence (calcium carbonate) comes from exposure of unhydrated calcium hydroxide particulates in cement or lime, to carbon dioxide in the environment. It is unattractive.

A product available in grocery stores, hardware stores, drug stores, etc. called C L R has proved extraordinarily successful in removing this pesky nuisance.

The key to C L R is its phosphoric acid content. There's an alternate, as well. Use diluted phosphoric acid in the ratio of one part phosphoric acid to 9 or 10 parts water. The acid is available at scientific lab suppliers. A gallon sells for about $50. Smaller quantities are also available.
ALKALINITY OR ACIDITY
This inexpensive tool is reliable and accurate.
Cost: About $14
Every painter should have one.

Unnecessary hassling takes place occasionally when stucco is alleged to be too alkaline to paint. Or, if paint is applied to an alkaline stucco surface with a pH above 9,

Many paints (probably MOST paints) are allergic to high alkalinity. Some paint suppliers call for use of a “primer” to interdict stucco and the paint application. Primer is supposed to be alkali resistant, thus protecting the paint.

The big problem is that often a pH determination is not made prior to painting. We have seen some stucco jobs painted the next day after application. This is extremely risky.

On job sites, we have asked painters if they have a “pH tester” like the one shown above. In virtually all cases they say no, and in fact many asked “what’s that?”

Techniques and Comments some years ago conducted tests to record pH levels of one-coat stucco applications. At the start, pH was 11.5. Too high. After two weeks, pH had dropped to 8.5. Just right for good paint application.

This was reported in issue 165 of Techniques and Comments. The headline reads: “DON’T PAINT THAT FRESH STUCCO – WAIT AT LEAST TWO WEEKS.” If you don’t have a copy, give us a call.

There is no problem so big that it cannot be handled successfully. When David had to face Goliath, no one would deny he had a big problem. How did he handle it? He had the right ideas to deal with it, and was successful. What started as a huge insurmountable problem turned out, at the end of the day, to be hardly a problem at all. Why can’t we do the same?

In Memoriam

We mourn the passing of a beloved old friend, Mr. Common Sense. Mr. Sense had been with us for many years. No one knows how old he was since his birth records were long ago lost in bureaucratic red tape.

He will be remembered as having cultivated such value lessons as knowing when to come in out of the rain, why the early bird gets the worm, and that life isn’t always fair. Common Sense lived by simple, sound financial policies (don’t spend more than you earn) and reliable parenting strategies (adults, not kids, are in charge).

His health began to rapidly deteriorate when well-intentioned but overbearing regulations were set in place. Reports of a six year old boy charged with sexual harassment for kissing a classmate, teens suspended from school for using mouthwash after lunch, and a teacher fined for reprimanding an unruly student. These only worsened his condition.

Mr. Sense declined further when schools were required to get parental consent to administer aspirin to a student, but could not inform the parents when a student became pregnant and wanted to have an abortion.

Finally, Common Sense lost his will to live as the 10 commandments became contraband, churches became businesses, and criminals received better treatment than their victims.

Common Sense finally gave up the ghost after a woman failed to realize that a steaming cup of coffee was hot. She spilled a bit in her lap, and was awarded a huge financial settlement.

Common Sense was preceded in death by his parents, Truth and Trust; his wife, Discretion; his daughter Responsibility; and his son, Reason. He is survived by two stepbrothers: My Rights and Ima Whiner.
We were pleasantly surprised and pleased to learn that the plant operations had been computerized, and high tech methods had been adopted so that every phase of every operation was checked and double checked before reaching the user.

One aspect that was really impressive was that sand is manufactured by BMI. It is clean, well-graded, and formulated for whatever the application requires.

All components go into a silo that is 8’x8’ by 27’ high. Dry materials are mixed in the silo, ready for the right ratio of water. Water is controlled so that the final mix of the day is identical to the first mix of the day. We viewed computer printouts that were impressive. They supported the comments made by the plant manager.

We discussed the technique involved with several major plastering contractors who declared the system was a real advance for the industry.

One of their data sheets has this to say: “Unlike made-in-field mixes, the BMI 690 base is a factory made, uniform quality, sanded portland cement plaster base blended in BMI’s state-of-the-art facilities. The base is specified with glass fibers, and can be delivered in 90 lb. bags and mixed in a “BMI mixer” or bulk delivered through BMI’s silo system, containing an integrated continuous mix.

By eliminating field mixing, sand piles and job debris are no longer problems. Only potable water is added at the job site. The plaster meets all ASTM standards for portland cement plaster (ASTM C 926).

BMI has teamed with Dryvit and STO Industries with special programs using products of both firms.

Techniques and Comments is satisfied that the BMI applications will perform better than many conventional applications. “The proof of the pudding is in the eating.”