
Advanced *Elastomeric Wall Coatings*



**for Masonry
and Concrete
Restoration**



and New Construction.

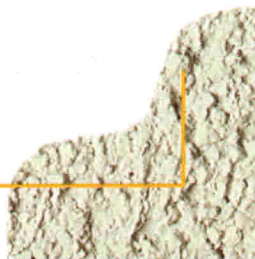




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Expanding *the possibilities* of exterior walls.

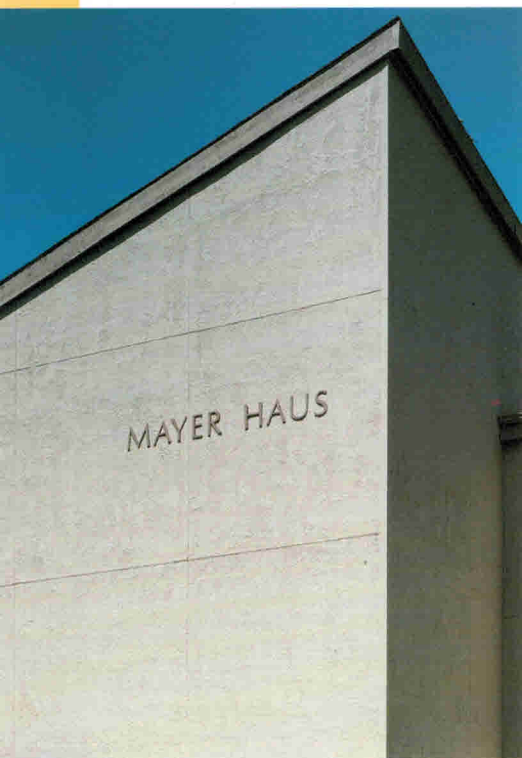
It's a fact – Buildings move. All exterior walls expand and contract with temperature change. Walls based on cement, such as masonry or concrete, can develop cracks, even in the best of circumstances. Wind-driven rain and acid-rain, and freeze/thaw conditions also combine to accelerate structural decay, which can appear not only as cracks, but as carbonation and spalling as well.

Elastomeric Wall Coatings (EWCs) were developed to help overcome these problems.

Flexible and water-repellent, EWCs protect building exteriors from the ravages of environmental extremes by “bridging” cracks — literally stretching to span the crack as it widens, and returning to their original shape as the crack contracts in size. Once an EWC is applied, it will help prevent water from penetrating the masonry or compromising a building’s structural integrity.

EWCs are available in a wide variety of textures and can be custom-tinted in hundreds of attractive colors. EWCs are easily applied by brush, roller or airless spray gun. They cure quickly and are virtually maintenance-free. And they last for years.

Whether you’re an architect, building contractor, maintenance professional or home owner, elastomeric wall coatings broaden your options for protecting and beautifying the exterior of any building, and enhancing your own image as well.



Retirement Village, Michigan



Crack-spanning *technology* that spans the globe.

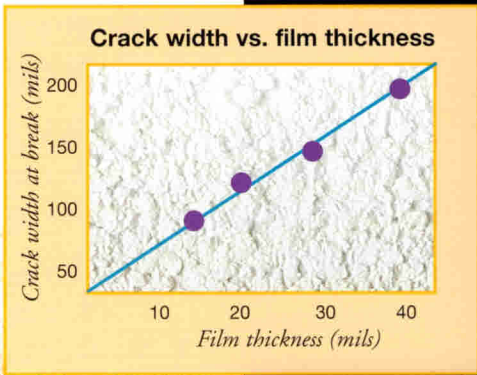
EWCs have proven their worth for many years in Europe and are gaining tremendous popularity here in the U.S. and Canada. They're ideal for use on industrial and commercial buildings, banks, hotels, hospitals and institutions, apartment buildings, condos and residential homes.

Adding to the global popularity of EWCs is the fact that they can be formulated for specific geographic locations, to withstand a variety of harsh environments. Whether a building must deal with the dry heat of New Mexico, cold Minnesota winters, the high humidity of Florida or the salt air of the New England coastline, there are elastomeric wall coatings specifically tailored to take those conditions in stride.

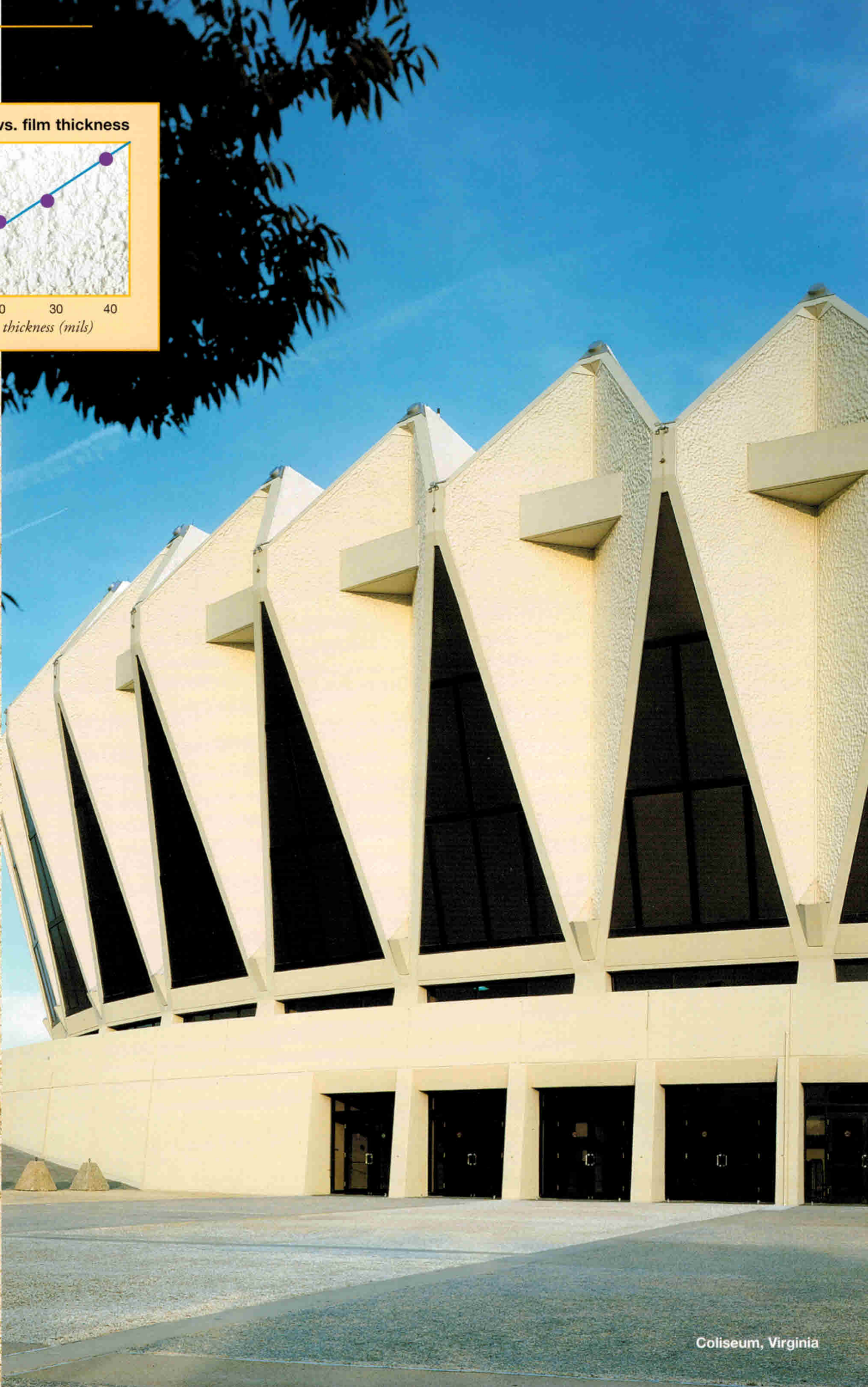
EWC technology is part of a system that offers a fast, efficient way to repair existing cracks on masonry surfaces. It's well-suited for renovation, providing older buildings with a bold new look. And EWCs can be incorporated into the design of new buildings to help prevent the appearance of unsightly cracks for many years to come.

The fine cracks in this new masonry need no surface patching. All that is required is a single primer coat, followed by an EWC, which is sprayed and then back-rolled before it dries.





The crack-bridging capability of an EWC is directly proportional to its thickness.



The difference *between EWCs and paint.*

Why does an EWC cover your masonry and concrete needs better than paint? First, an EWC is designed to be elastic, so it remains flexible and provides crack-bridging capability over a broad temperature range.

Correctly applied, an EWC has a dry film thickness that is a minimum of four to five times thicker than paint. The extra thickness and flexibility result in extra durability and control over the penetration of wind-driven rain. So, over the years, the added life expectancy and water-resistant properties of EWCs add up to superior protection.

The chemistry of *elasticity.*

100% acrylic elastomeric binders, from Rohm and Haas Company, are the key component in most top quality EWCs. They impart a high degree of flexibility, tensile strength and resistance to cracking and wrinkling. The elastic nature of acrylic latex chemistry allows the coatings to stretch and recover their original shape repeatedly, covering the cracks underneath without wrinkling or leaving visible ridges.

Another benefit of acrylic chemistry is that it is water-borne. EWCs are environmentally friendly, containing few volatile organic compounds (VOCs) to release to the atmosphere. Also, tools and brushes can be cleaned up with just soap and warm water, and unused or leftover coatings can be disposed of as you would any water-based acrylic paint.

When stressed to its limits on an Instron machine, the coating elongates. When released, it returns to its original shape without wrinkling. It works the same way on a building wall. The elastic coating flexes and resists cracking, sealing out moisture and the elements.



Stable



Stretched



Recovered



Superior properties *s t r e t c h* EWC performance parameters.

While EWCs formulated with 100% acrylic elastomeric binders are well-prepared for expansion and contraction caused by temperature change, they are also unsurpassed for low-temperature flexibility — a real concern for buildings in colder climates. They also exhibit superior resistance to dirt pickup, UV degradation, mold, mildew and alkali. Today's EWCs protect masonry from the elements better than ordinary exterior paints.

Water- and moisture-resistant.

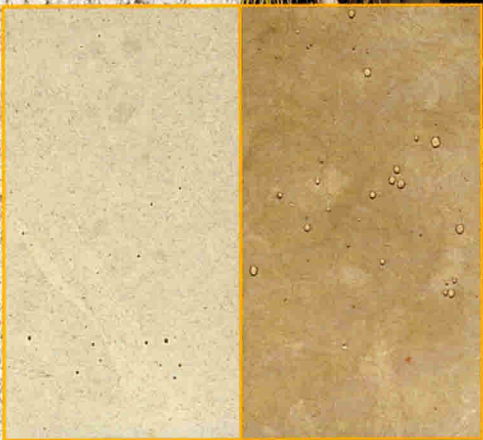
EWCs are one of the best ways to help keep wind-driven rain, moisture and the elements from destroying a wall or an entire structure. Buildings in high humidity environments like Florida are particularly vulnerable, as moisture, especially acid rain, seeps into cracks to rust and corrode steel rebars that reinforce whole sections of the building.

EWCs cure into a tough coating that helps prevent rain from penetrating into the masonry. But the coating “breathes,” like acrylic paint. This permits water vapor trapped behind the substrate to migrate through to the surface where it evaporates.

EWCs are also well-suited for porous walls such as stucco or concrete block. On these surfaces, the EWC provides an excellent barrier against water penetration and the intrusion of cold air or extreme heat.

In cold climates, EWCs reduce the spalling damage caused by the intruding water, which penetrates cracks and freezes as temperatures drop. (Water expands as it freezes, causing the masonry to crack.)

In the test below, EWCs were applied to exposure panels. After three years, the EWC made with 100% acrylic binders demonstrated outstanding resistance to dirt pickup, far better than the EWC made with non-100%-acrylic binders.

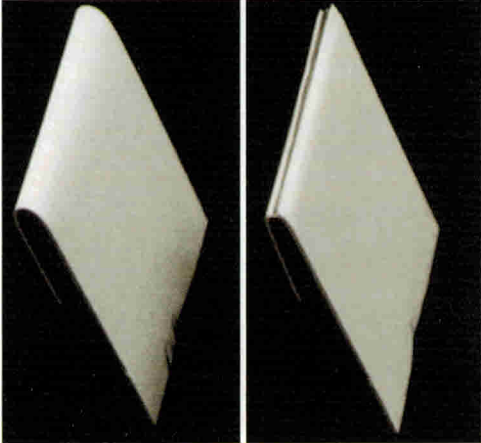


**100% Acrylic
Formulation**

**Non-100%-Acrylic
Formulation**

Low-temperature *flexibility.*

Coatings that are flexible at room temperature do not necessarily remain flexible at low temperatures. In this Mandrel Test, a 100% acrylic elastomeric formulation and a non-acrylic formulation were applied equally to panels at a thickness of 15-18 mils. The panels were dried for three days, then second coats were applied and allowed to dry for 14 days.



100% Acrylic
Formulation

Competitive
Formulation

Next the panels were exposed for four hours to a temperature of -15°F (-26°C), then were flexed 180° over a 1/8" mandrel and examined for cracking. Look along the ridge of both panels. Notice that the non-acrylic coating became brittle and cracked. But the 100% acrylic-based EWC withstood the freezing cold and curvature without failure.

Better *resistance* to dirt pickup.

If the EWCs you choose are made with 100% acrylic elastomeric binder from Rohm and Haas, they have built-in resistance to dirt pickup, enabling them to stay cleaner longer. They cure into a smooth, seamless, non-tacky surface that is extremely resistant to the accumulation of dirt. So new exteriors retain their uniform, freshly painted look for many years.

In this test, EWCs were applied to exposure panels. After three years, the EWC made with 100% acrylic binders demonstrated outstanding resistance to dirt pickup, far better than the EWC made with non-acrylic binders.



Restore *an original look.*

EWCs can be used on a variety of surfaces, including stucco, cement block, exterior insulation and finish systems (EIFS), pre-cast concrete and other masonry. EWCs cover up cracks in existing masonry, restoring its original appearance. But they're also increasingly popular for renovating entire structures. EWCs enable you to transform old into new. Or give the building a more modern appearance while preserving the classic architectural style that made it worth saving in the first place.

Prepare for *success.*

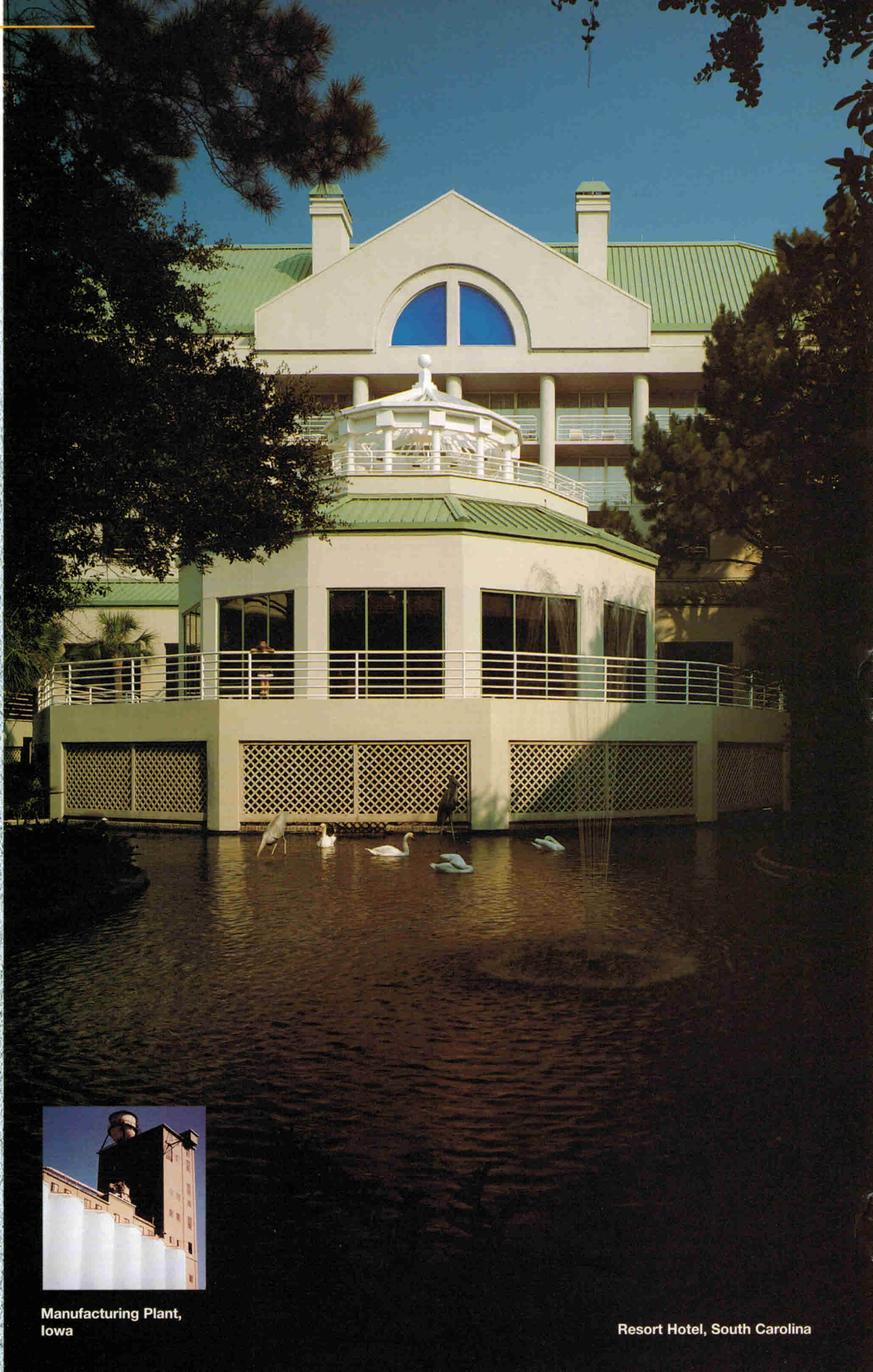
Careful surface preparation is essential to promote proper bonding of the elastomeric wall coating. Use a power wash or bristle brush to remove dust, dirt and loose materials. Any mold or mildew present should be removed.

If the cracks in the masonry are $\frac{1}{16}$ " wide or larger, they should be repaired. For small to mid-sized cracks, use a 100% acrylic tube or knife-grade caulk. For larger cracks, holes or damaged masonry, use a cementitious masonry patching mortar. For complete information on repairing cracks, follow the recommendations of manufacturers of caulks or patching compound.

If the masonry is already covered with an existing EWC based on 100% acrylic elastomeric binder, it can be readily re-coated with proper surface treatment.

First the old surface is repaired with a cementitious mortar patching compound. After curing, the surface is covered with primer/sealer. The finished surface shows the EWC applied by spray gun and nap rolled.





Manufacturing Plant,
Iowa

Resort Hotel, South Carolina

Efflorescence — *helping to solve a problem* that always surfaces.

Masonry surfaces are prone to efflorescence — a crusty white deposit that migrates to the surface over time, causing blotches. It is the result of salts (common in all masonry) that leach from the masonry as moisture moves through it.

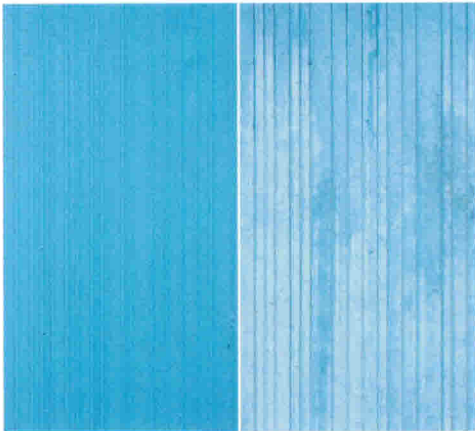
Fortunately, EWCs made with 100% acrylic elastomeric binder from Rohm and Haas are applied as a thick film that helps control efflorescence. EWCs help prevent water penetration and, by doing so, reduce the incidence of efflorescence.

Primed and *ready*.

Efflorescence can appear on new masonry as a white, salty deposit that is difficult to remove. Coatings based on 100% acrylic polymers help control the problem.

Although EWCs are designed to be applied right over a clean masonry surface, an alkali-resistant primer/sealer is recommended. Besides providing additional protection over highly alkali surfaces, the primer is very useful when coating porous surfaces, helping to seal and condition the surface prior to applying the EWC.

Once sealed, the substrate will “absorb” less of the initial coat of the EWC. And that can help reduce the cost of EWC materials and labor. The photos on the facing page illustrate the difference a primer makes on a highly absorbent exterior surface, such as concrete block.



**100% Acrylic
Formulation**

**Non-100%-Acrylic
Formulation**



Apply with confidence.

Elastomeric wall coatings perform best when applied in a thick film and two coats are usually recommended. Most manufacturers suggest a minimum dry film thickness of 12-18 mils for best crack-bridging capability and all around performance.

Crack width vs. film thickness.

The typical application technique is by spray gun followed by back-rolling, or by a long-nap roller. A brush works well for smaller areas. Once the EWC dries, it has a finish that appears to be freshly painted. It will keep this attractive look for many years.

Many EWC manufacturers offer warranties of 3 to 5 years. But with proper care, the service life of an EWC can extend well beyond 10 years, providing an excellent return on investment and very low life cycle cost.

The Do's and Don'ts of EWCs.

Do take the time to perform good surface preparation before applying.

Do seal cracks $\frac{1}{16}$ " or larger with a top quality acrylic latex caulk or a cementitious patching mortar.

Do use a primer/sealer when coating very porous or chalky surfaces, and on fresh masonry.

Do apply EWCs in a very thick film to achieve maximum flexibility and crack-bridging capability.

Don't skimp on quality. High grade EWCs provide the best performance.

Don't paint elastomeric coatings with a solvent-based topcoat.

Don't apply on interior or exterior walls that are below-grade where the coating will be subject to hydrostatic back pressure, such as basements, planters or retaining walls.

Don't apply directly to surfaces with a pH above 11.

As shown below, alkali rapidly degrades the binder in non-acrylic coatings, causing film failure and color loss. 100% acrylic binder is far more resistant to alkaline attack. Top half primed with acrylic, bottom half, unprimed.



100% Acrylic Formulation

Non-100%-Acrylic Formulation



Retail/Office, California



Retail Store, Wisconsin

New *construction* builds EWC popularity.

More and more, architects and builders are discovering the unique design advantages of incorporating elastomeric wall coatings into new buildings and homes. And with good reasons. EWCs unlock the imagination, with dramatic finishes, surface textures and color combinations that create exciting accents or help a building blend more naturally with its surroundings.

Elastomeric wall coatings enable you to enhance structural depth and dimension. Add custom graphic elements. Highlight curves, molding, ornaments or sculpted shapes. EWCs can also help you to visually divide larger buildings by using complementary colors and textures to create the harmonic appearance of many smaller individual structures.

Whatever your architectural challenge, elastomeric wall coatings give you a decided edge, far beyond the limits of traditional exterior building materials.

The cure for fresh masonry.

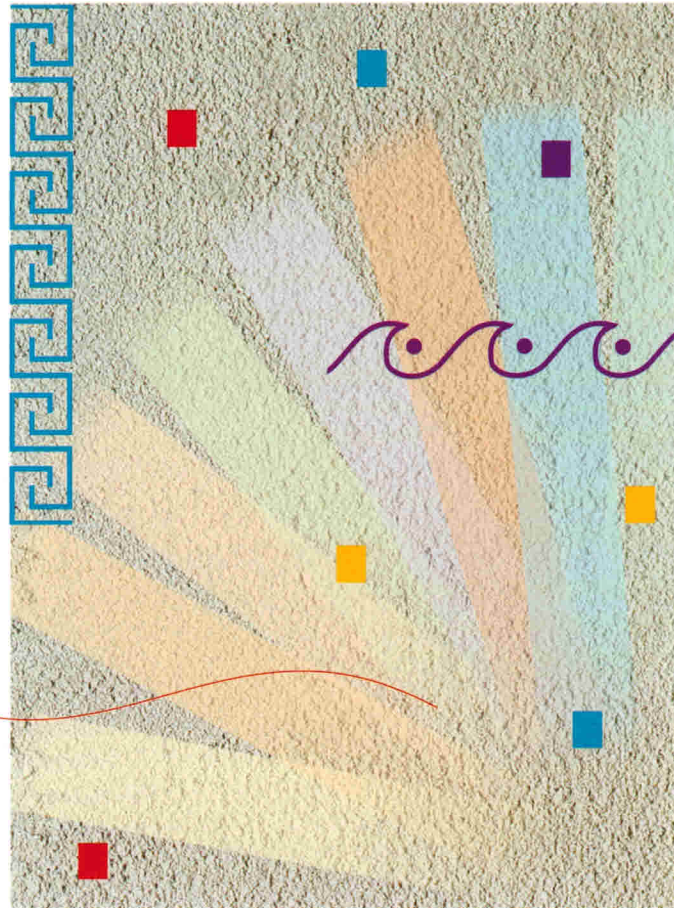
While EWCs can be applied to older masonry immediately, most EWC manufacturers recommend that freshly applied masonry be allowed to cure for 28-30 days. This avoids the possibility of efflorescence and alkaline damage in the first year. It may also be a good idea to apply an alkali-resistant primer after the curing period, to ensure good adhesion of the EWC.



Colors – *tints* and textures.

Currently, hundreds of elastomeric wall coatings colors exist. From muted earth tones, pastels and primary colors to vibrant tints and thousands of custom-blended shades, EWCs help you capture a building's true character.

EWCs can also be formulated to achieve distinctive surface textures you desire — smooth, granular or rough. Just about anything you can imagine, an EWC can deliver.





See what an *EWC* can do for you.

Today's advanced elastomeric wall coatings offer you a whole new world of architectural possibilities for new and existing buildings. And there are a number of top quality EWC manufacturers to choose from, nationwide. For a list of them, simply return the enclosed business reply card.