Six Steps for a Successful Coating Application

one Conduct a project survey to diagnose symptoms and causes.
What types of substrates will be coated? What is their present condition? Have they been coated before? Are there conditions (such as cracks, chalking, joints, rusting surfaces) that could adversely affect the coating's performance?

two Develop a coating strategy.
Based on the diagnosis of the surface/structure, a coating strategy should answer the following questions:

- What type of coating will be used? What color?
- What physical properties are needed? Elastomeric or non-elastomeric? UV stability? Breathability? Resistance to wind-driven rain? Resistance to mildew or fungus? Solids content?
- Is the coating smooth or textured? Will it be spray or roller applied? If textured, will it be trowel applied?
- What surface preparation is required? Will the coating adhere to the prepared substrate or is priming required?
- How will the structure be accessed? Swing stage, hydraulic lift, or scaffolding?
- What maintenance will be required after completion of project?

three Prepare the surface properly.
The importance of surface preparation can not be overstated. Improper surface preparation will always result in one or more of the following: poor appearance, loss or adhesion, shortened product life, coating failure and customer dissatisfaction.

Surface prep. Surfaces to receive coatings should be pressured washed using high-pressure water-blasting (>3000 psi). Surfaces should be sound, clean, dry, and free from all bond-inhibiting materials including dust, chalky coatings, and mildew. Remove mildew by spraying the surface with a solution of water and household bleach; scrub mildly as required. Stubborn cases may require a stronger industrial detergent. Always thoroughly rinse areas where bleach and cleaners have been used.

Where pressure-washing does not remove problems such as flaking or dusting on an existing coating, a surface conditioner or primer may be required. Consult the material manufacturer for guidelines when this condition exists.

Crack repair. Cracks should be routed and filled with a flexible crack filler (caulk) that is both capable of handling movement and compatible with the finished coating. If the cracks are not moving and are greater than ¼ inch and texture is a concern, then use either a cement-based repair material or a flexible finish capable of being textured. Surface imperfections, "bug holes," should be repaired by applying a surface leveling mortar prior to application of coatings or finishes.

four Prime surfaces.
Some coating manufacturers require a primer, especially for alkaline substrates such as concrete, stucco, or concrete masonry. Products developed specifically for use on these substrates are considered self-priming and do not require a separate primer

before application.

When applying the first, or prime, coat always apply the product uniformly, allowing the material to penetrate the substrate. Avoid applying material in excess because this can lead to tear-dropping, pin holes, and possible adhesion problems.

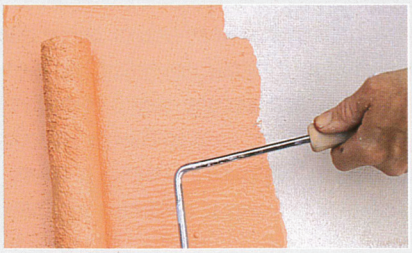
five Apply finish coat.

Apply finish coat only after the prime or first coat has dried to a tack-free condition. Avoid applying in excess.

six Adopt a maintenance program.

A successful coating application should include a maintenance program. This may be a yearly inspection of the surface by the owner to monitor potential problem areas such as mildew or fungus growth. Periodic cleaning of coatings will prolong product life and maintain an attractive appearance.

Application Techniques



Roller

Select the proper nap for your application. For coating concrete, smooth stucco, or light textured stucco, a 3/8-3/4" medium nap roller cover will yield best results. For heavy textured stucco, concrete block, or brick substrates use a 3/4-1" nap roller cover.

Never work in direct sunlight. When possible, work a face that is "ahead" of the sun.

To eliminate lap marks, inconsistent material application and shade differences–

- Keep a "wet edge" when applying materials with a roller. Always apply a coating while the edge of the previously applied section is still wet.
- Use a random roller pattern rather than a strict up-and-down motion.
- Keep your roller loaded with material; do not let material "dry out" of the roller.

Work prime coats into the substrate.

On vertical surfaces always work to a point of architectural relief. This means working to a change in plane, corner, window, or expansion or control joint rather than stopping in the middle of a wall. If this practice is impossible, terminate the coating on a 45° angle to minimize vertical lap marks. The human eye does not pick up a diagonal line as quickly as it does a vertical one.

Spray

Before beginning spray application, consider these points:

- Is the structure in an area where spray application is allowed? Will ambient conditions allow for spray application? Will it be windy?
- Is the equipment to be used capable of spraying the material? Smooth coatings offer few problems, but tip size of the spray equipment is important. Textured coatings can be sprayed if the equipment is capable of pumping an aggregate filled coating. Check with the equipment manufacturer for the limitations of particular equipment.
- Wear proper safety equipment, safety glasses and respiratory protection.
- Spray an identical sample for approval before beginning application.
- Prior to application, position material so that it's readily available for refilling spray equipment. Keep hoses clear of obstruction and allow plenty of slack for applicator.
- Never work in direct sunlight. When possible, work a face that is "ahead" of the sun.

During application:

- Clean outside of nozzle every 15 minutes to avoid blockage and material build up.
- Check surfaces for uniformity of application.
- Spray detail areas first. Mask or cover areas to avoid overspray and spill. Avoid spraying main wall area and remove any overspray before spraying main area. Remove masking before material sets.
- When spraying mail wall area, maintain a constant distance from wall surface with spray tip. Keep spray application perpendicular to surface. Use a small oval or circular motion. Maintain consistent procedure throughout. Start and stop at architectural breaks. Backroll smooth coatings.
- If using scaffolding, set scaffold back far enough for access and elimination of shadowing the surface. Remove any obstructions that could impede the applicator. Maintain clean walkway planks.