

Wall & Imaging System 1002-WI

For all substrates including wood, masonry, and metal

A 100% Water-Based; Base-Coat / Clear-Coat System

Using Chem-Bake® 8000 Base Coat and Chem-Clear® WB Clear Coat

Non-fading paint system for graphic design and imaging on commercial buildings



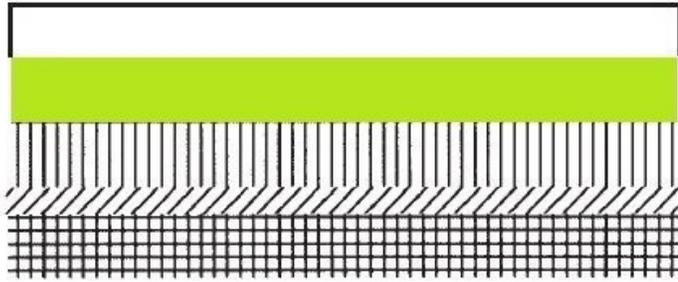
Wall & Imaging System 1002-WI was developed specifically for the painting of bright and vibrant colors used as accents, graphics, or corporate branding on commercial buildings.

It can be applied overtop almost any new or previously painted surface that is in good shape and has no existing peeling or otherwise failing paint.

This system involves the proper cleaning and preparation of the surface, the application of a bonding primer in certain circumstances, then the application of *Chem-Bake® 8000 XLT Colored Base Coat* followed by a final coat of *Chem-Clear® WB Water Based Single Component Polyurethane Co-Polymer Clear Coat* to "Chemically Bake*" everything together.

Available in an almost unlimited palette of bright and vibrant colors. Because the color never comes in contact with the elements, it is nearly fade-proof keeping those all-important branding colors constantly looking like they were just painted yesterday. This system comes with an 8-year warranty that can be extended to 14 years by the application of additional clear coat before the end of the 6th year

**Chemical Baking refers to a system of hardening and protecting the base coat through the application of a single component water-based polyurethane co-polymer clear coat and not through heat.*



- Chem-Clear WB Clear-Coat
- Chem-Bake 8000 XLT Colored Base Coat
- Bonding Primer (if Required)
- Existing Coating (if any)
- Substrate

Wall & Imaging System 1002-WI Specifications overview

Average Service Life -----	8-10 years (extendable to 14 plus years)	Color retention -----	5
Composition -----	Acrylic basecoat / Co-polymer clear	Gloss retention -----	5
Reduction -----	Water	Clean-ability -----	4
VOC Level -----	Available as low as 150 gpl / 1.2 lb	Scratch resistance -----	4
Sheen level -----	Gloss	Hardness -----	4
Application Temp Range -----	50°F to 95°F	Chemical resistance -----	4
Dry to handle -----	Basecoat: 1 hour; Clear: 1 hour	Corrosion resistance -----	3
Application process duration -	1 day	Ease of application -----	4
Self-Priming -----	Yes, on properly prepared surfaces	Ease of touch-up -----	4
Versatility over substrates ----	Self-priming on most painted surfaces		
Minimum dry mil thickness ---	Base-coat: 1.5 mil; Clear-coat: 2 mil		
Cost, material per sq/ft --	As low as \$0.30		

6= Superior, 5= Excellent, 4= Good,
3= Fair, 2= Marginal, 1= Poor

Evaluating the project for suitability for using the Chem-Bake® System

Chem-Bake® and Chem-Clear® products should only be applied to substrates that are sound and show no signs of peeling or adhesion failure. If applied to a surface that has inter-coat adhesion issues, Chem-Bake® and Chem-Clear® products in some cases may accelerate the peeling failure process because of their strong adhesive nature.

If there are any concerns or questions about the surface integrity then an adhesion test should be performed. This can help determine if the substrate adhesion is adequate for using Chem-Bake®, especially if questionable coats of another product are evident.

If changing colors or coating a previously unpainted substrate a primer and/or barrier coat is strongly recommended, especially when bright or vibrant colors are being used.

Surface Preparation. The service life of a coating is directly related to the surface preparation. Surfaces to be painted should be clean, dry and free from wax, grease, dust, silicone, oil and excessive chalk. Remove rust, loose or peeling paint and all foreign matter.

Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Seal stains from water, smoke, ink, pencil, grease, etc. with the appropriate primer/sealer. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system

Existing Painted Surfaces: Remove all oil, dust, grease, dirt, chalk, rust, loose or peeling paint and all foreign matter. Scrape and sand peeled or checked paint to a sound surface. Steel rust and mill scale must be removed using sandpaper, wire brush, or other abrading method. Bare steel must be primed the same day as cleaned. Glossy or smooth hard surfaces should be dulled and/or abraded using Sand & Scrub cleaning mixture, silicon carbide sandpaper, Scotch-Brite® or other abrading medium to create a surface profile. If adequate surface profile is not achieved then Chem-Bake® bonding primer is recommended.

Any coating failure resulting from inadequate surface preparation or failure to follow manufacturer's recommendations and specifications are the sole responsibility of the Contractor to remedy.

Masking and Protection: Protect all areas not being painted. Check for nearby cars and trucks that might be at risk for overspray. Chem-Bake® and Chem-Clear® products have high adhesion properties. If items are over-sprayed, it is very difficult to remove!

Environmental Conditions: Don't apply if the air, surface, or material temperature is above 100 degrees. Avoid painting in direct sunlight. Don't apply when there is a risk of rain or freezing temperatures between the application of the *Chem-Bake® Base Coat* and *Chem-Clear® WB "Baking* Clear"*, or within 12 hours after the final application of the *Chem-Clear® WB "Baking* Clear"* finish. Don't apply *Chem-Clear® WB* when relative humidity is above 90% or will become so within 2 hours after application. Don't apply when the ambient or surface temperature is within 5 degrees of the dew point. Don't apply if the air, surface, or material temperature is below 50 degrees or if it will become so within 4 hours after application. Don't apply *Chem-Clear® WB "Baking* Finishes* over top *Chem-Bake® Base Coat* within 2 hours of sunset. Avoid spraying in windy conditions to reduce the risk of contaminants adhering to the surface.

Handling: Read all label warnings and data sheets prior to handling any paint or coating! Although the *Chem-Bake®* system is considered environmentally friendly when used properly, as with any industrial coating it does contain certain chemicals that can irritate the skin and lungs. Always wear chemical resistant gloves when handling and avoid contact with the skin. Always use a properly fitted respirator that employs chemical cartridges while handling, mixing, or spraying any *Chem-Bake®* product. Consult MSDS sheets for further warnings and information on the chemical composition.

Sprayer and Spray Equipment: Use spray equipment that delivers paint at an even consistent pressure without "surge". The sprayer, hoses and gun must be thoroughly clean. Always use a hose and gun that is dedicated for spraying water based coatings, separate from spraying solvent based products.

Adjusting for Correct Spraying Pressure:

- Both the *Chem-Bake® Base Coat* and *Chem-Clear® WB Finish* should be sprayed at the least amount of pressure required to obtain a uniform spray pattern.
- To adjust to the proper pressure, using a NEW tip, back-off the pressure knob all the way and then screw it in about 1/3rd of the way. (Screwing in increases pressure on most sprayers). Point the gun at a piece of cardboard for testing and with your hand in motion, pull the trigger and spray a sample area.
- If you have thick lines at the edge of the spray pattern, sometimes referred to as "fingers", turn pressure knob 1/8 and spray again. Repeat until they are gone. Now you have the proper amount of pressure for the material you are spraying. (If no amount of pressure eliminates the tails, then the tip is worn or damaged).
- If you need more paint flow, increase the size of the tip, not the pressure. There should never be a cloud of spray-mist surrounding the person spraying, a sign of too much pressure!

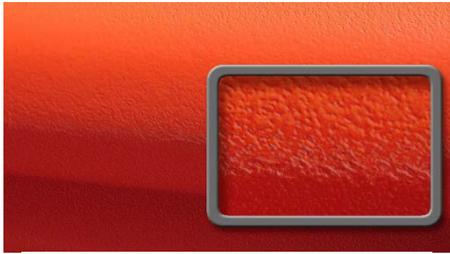


Application of *Chem-Bake® Colored Base Coat*:

Mixing: Mix contents of each container of *Chem-Bake® Base Coat* thoroughly to assure proper pigment disbursement. Box together all material that will be for that job to assure color consistency from container to container. Normally thinning is not required, however if thinning is needed to help with the application, use cool distilled water only. Reduce in small increments to avoid over-reduction. Do not exceed 5%.

Chem-Bake® Base Coat Spray Application Method: Confirm the substrate is clean, free of chalk, and de-glossed per above specifications. If spraying otop a glossy or hard slick surface, 1st apply a coat of *Chem-Bake®* bonding primer and allow to dry for a minimum 3 hours.

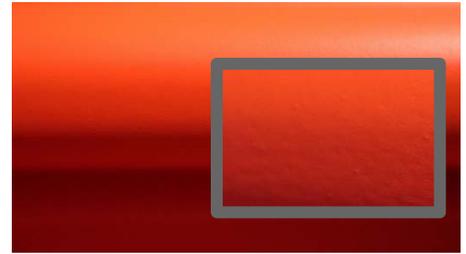
- *Chem-Bake® Base Coat* should be applied at 5 mil wet per coat (315 sq ft per gallon no reduction) to achieve a minimum 1.5 mil dry film thickness. When using certain colors more than 1 coat maybe required to maintain color vibrancy
- Use a new 4-12 or 5-14 double orifice fine finish spray tip. Holding the spray gun approx. 6", and no more than 10" from the surface.
- Start your hand in motion first and then pull the trigger, release the trigger just before you reach the stopping point of your swing. Each pass should overlap the prior pass by 50% to obtain full coverage.
- Improper technique can lead to "dry-spray" resulting in areas that have a rough texture, and a blotchy and inconsistent look. Always maintain a wet edge, overlapping passes by 50%. If "dry-spray" does occur, apply a 2nd coat.
- HELPFUL HINT: Keep all fluid lines, spray pump, and material out of the sun. Cooler material flows (smooth's) out on a surface better.
- The final finish should be smooth and have no pinholes or stippling in the finish which may void the warranty.
- Make a thorough inspection of all painted surfaces. Minor imperfections can be touched up with a high-quality brush.
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Incorrect: stipple / orange peel



Incorrect: Pinholes



Correct: smooth finish no stipple

Application of **Chem-Clear® WB “Baking* Finish”**:

Mixing: Mix contents of each container of *Chem-Clear® WB* thoroughly. Thinning is not recommended, however if thinning is needed to help with the application, use cool distilled water only. Reduce in small increments to avoid over-reduction. Do not exceed 5%.

Chem-Clear® WB “Baking*Finish” Application Method:

- *Chem-Bake® XLT Base Coat* must dry a minimum 3 hours before applying *Chem-Clear® WB “Baking* Finish”* overtop.
- Confirm the substrate is clean and dry per above specifications.
- *Chem-Clear® WB* should be applied at 5 mil wet film thickness (320 sq ft per gallon no reduction) to achieve a minimum 2 mil dry film thickness.
- *Chem-Clear® WB “Baking* Finish”* the same way as the *Chem-Bake® Base Coat*.
- Use a new 2-10, 3-10, or 3-12 double orifice fine finish spray tip. Holding the spray gun approximately 4”, and no more than 6” from the surface, start at the top of the door and spray horizontally across the door following a corrugation “rib”. Start your hand in motion first and then pull the trigger, release the trigger just before you reach the stopping point of your swing. Each pass should extend completely from one side of the door to the other.
- Each rib in the roll door requires a complete pass across the face overlapping the prior rib by 50% to obtain full coverage. Keep the gun consistently the same distance from the door while spraying. Avoid sweeping the gun away at the edges of the door or you’ll end up with a wide arc of material on the edges and more concentrated in the middle of the door. This will increase the risk of runs in the middle and holidays and flashing at the edges
- Improper application technique can lead to dry spray resulting in areas that have a rough texture, or have a blotchy and inconsistent look. Always maintain a wet edge and overlap passes by 50%.
- If dry spray does occur, apply a second coat as noted.
- **HELPFUL HINT:** Keep all fluid lines, spray pump, and material out of the sun. Cooler material flows (smooth’s) out on the surface better.
- The final finish should be smooth with a consistent gloss and have no pinholes or stippling in the finish. Pinholes or stippling may void the warranty.
- By not having proper application technique, dry spray may occur resulting in areas that have no sheen, a rough texture, or a blotchy and inconsistent sheen. Again, always maintain a wet edge and overlap passes by 50%.
- If dry spray does occur, apply a second coat as explained above.
- If a 2nd coat is required, wait 30 minutes, or until the first coat is dry before applying a 2nd coat.
- Make a thorough inspection of all painted surfaces. Minor imperfections can be touched up with a high-quality brush



Incorrect: stipple / orange peel



Incorrect: Pinholes



Correct: Smooth finish

Appendix A

Common Workmanship Mistakes that can Void a Warranty

Painting in the Rain, Snow, Fog, etc. (note rain drops in finish)

Painting Over Grit and Dirt

Severe Orange Peel

Runs and Sags

“Dry Spray” (applied too thin or when too hot)