

all island group

Pool Finish Supply

Application Guidelines



Rev. 3.8 10-6-17

Surface Preparation for Plaster Pool Finishes

1. Completely drain and remove all debris from inside the swimming pool.
2. Any painted pool will have to be media blasted and stripped of all paint on the substrate. Use a grinder wheel for hard to reach places if necessary.
3. Inspect existing plaster for any hollows, large cracks bigger than a hairline, and moisture bleeding.
4. All hollows and large cracks in the plaster need to be removed and filled.
Lightly grind entire substrate to remove brittle areas with a concrete grinder.
We recommend using blue-line rapid repair grout for all hollow plaster repairs. Application procedures of manufacturer must be followed including damp burlap covering to produce proper curing. If Blue Line is not available, the microcoating used to fill hollows must be a quartz material or equal since traditional plaster will crack. Apply a scratch kote (bond kote) for solid adhesion to any repairs before you fill it.
5. Any high moisture areas in the plaster that continuously register above 40% to 50% on your moisture meter will need to be cut out and repaired.
6. For projects where the waterline tile is not being replaced, use a 4" masonry grinder disc to score the bottom of the tile line no more than 1/16 - 1/32" deep. This allows our product to form a tight seal underneath the existing tile line.

See figure 1A on page 12.

If tile is being replaced, set the new tile line with a 1/16" to 1/32" overhang to allow the Resodyn finish to meet evenly with the bottom of the new tile line. If the tile line is being eliminated, the tile channel around the entire pool will need to be filled after the existing tile is removed. Just like when making a plaster repair, apply a scratch kote prior to filling it.

7. All wall fittings, light niches, drains, and water feature fittings should be scored around each individual fitting no more than a 1/8" to 1/16" deep with a Dremel tool using a 1/8" to 1/16" tile cutting bit. See note below.

See figure 1B on page 12.

Note: Wall fittings and main drain covers can be coated with Resodyn Pool and Spa finishing systems. If doing so, do not score around any of the fittings or drain covers. Follow appropriate surface preparation procedures.

8. Once all repairs are completed an acid wash MUST be completed on the pool. Use a mixture of Sodium Bicarbonate and water to neutralize any residual acid on substrate before proceeding. You may use a standard pool test strip to check pH. ***See figure 1C and 1D on page 12.***

****If inclement weather is in the forecast, a tent can be set up to keep the job moving. Be sure to have enough ventilation in the pool to allow the material to cure. Please note that any enclosed work area should be monitored with a carbon monoxide detector. All individuals should wear approved respirators during application.**

Acid Washing Procedure

Acid washing a pool plaster finish is essential before applying Resodyn pool and spa finishing systems. This will allow a clean bond between the pool plaster and the ResoBond 900 base coat. Acid washing can be a hazardous job, please use recommended safety practices for all material handling and storage.

Materials Required

- **Muriatic Acid (hydrochloric acid 31.45%)**-approximately 1 gallon of acid for every 100 square feet of interior surface area
- **Sodium Bicarbonate**-2 pounds of sodium bicarbonate for every one gallon of acid used to neutralize
- **Plastic watering can**-preferably with a long spout
- **Garden hose**
- **Empty buckets**
- **Long handle acid brushes**
- **Sump pump with discharge hose**
- **A minimum of two technicians**
- **Respirator for each technician**
- **Protective clothing, goggles/safety glasses, rubber gloves, and rubber boots**

Acid Washing Procedure

1. Start draining the pool. As you drain the pool, continuously wash the walls and floor down to remove all algae and leaves. If you let algae or any other debris dry on the surface, it becomes twice as difficult to remove. Once all the water is removed, bag up all remaining debris and remove from the swimming pool.
2. Set up the sump pump in deepest part of the pool. Make sure to have a long enough discharge hose to pump out the acid solution as it accumulates during the acid wash. Run the discharge hose up the shallow end floor if your pump is having trouble lifting the water out of the deep end. Turn the sump pump on during the acid wash to dispose of the neutralized solution in an environmentally safe manner.
3. Prepare acid solution. Using a 50/50 ratio, add equal parts acid to water into an empty watering can. **Always** add acid to water, **never** add water to acid. Some find it easier to pre-mix acid solution in a larger bucket before adding to the watering can.

4. Saturate the pool shell thoroughly with water. Be sure to keep it saturated during the entire acid wash process. Keep the water hose running at all times, without a nozzle. After saturating the pool surface, leave the water in the bowl to help with neutralizing acid solution.
5. Sprinkle an adequate amount of sodium bicarbonate in and around the water in the deep end bowl to create a highly neutralized solution in preparation for the acid wash. It is best to continue to neutralize as you go, using 2lbs of sodium bicarbonate per 1 gallon of acid used. During the acid wash the bottom of the pool will be filled with a foamy, acid puddle. Broadcast the sodium bicarbonate over the puddle and periodically stir with a pool brush on a pole. Place a handful of sodium bicarbonate in the light niche to help prevent streaking from the acid wash.
6. Start acid wash. Due to the strength of the acid it is important that the pool is completed in sections. Avoid pouring the acid solution onto dry surfaces. It is critical to keep the entire pool finish saturated with water during the acid wash. Moisten the wall again with water before pouring the acid solution on it. Pour the acid solution down the wall, from top to bottom, one section at a time. Do not allow the acid to sit on the plaster for very long. Typically 20-30 seconds is an adequate set time. Use an acid brush to scrub the surface and to continuously move the acid solution around. Be sure to brush low areas to prevent acid puddles and over exposure. Rinse quickly and thoroughly. Remember, horizontal surfaces like steps or swim outs require a very thorough rinse. Acid does not deplete itself, it continues to corrode until it is completely diluted or rinsed off.

***If the 50/50 mixture is not strong enough, you can increase the acid strength or lengthen the set time (pre rinse) of the acid solution.*

7. Once the acid wash is completed and the neutralized waste water has been removed, rinse the deep end bowl with water again. If needed, lightly acid wash the deep end bowl again to clean up well around the floor drains and/or returns.

Safety Notes

- Acid fumes can be very strong, and very dangerous. Be sure to wear respirator, goggles/safety glasses, and protective clothing during the acid wash procedure.
- Transporting the acid can be very hazardous also. Secure the load in the vehicle.
- Falling into empty pools is another serious hazard. Make sure that the deck area around the pool is clear and free of trip hazards. Make sure all personnel on site are aware of the risk of falling into an empty pool.



ResoBond 900 Combination Bonding Coat and Moisture Barrier

1. ResoBond 900 is the bonding agent used for pool plaster surfaces. Once plaster preparation is completed, you will apply ResoBond 900 prior to the application of the ResoCoat 301 Pool Finish.
2. Use heat tape that can withstand 500° Fahrenheit. Install 2” heat tape with heavy duty 24” aluminum foil over the waterline tile. **See figure 2A on page 13.** Cover all wall fittings, drains, light niches, and any other plastic fittings with heat tape and foil. Any interior step tiles or design tiles should be covered with heat tape and trimmed to fit. The substrate must be free of dirt, dust, oil, grease, and water before Resobond 900 is applied. If ambient moisture has dampened the surface, simply vacuum any water at the bottom of the pool and wipe down any wet walls before proceeding.
3. Only one coat of ResoBond 900 is needed.
4. Moisture level of the substrate **MUST** register no higher than 40% - 60% on the moisture meter before applying ResoBond 900. Maintain an ambient and surface temperature between 60°- 80° Fahrenheit during mixing, application, and curing time.
5. **ALWAYS** pour the resin (Part A) into the hardener (Part B). Both units are pre-measured for correct mixing ratio.
6. Mix ResoBond 900 with a standard paint stick. Stir until mixture has the same consistency throughout the container. Apply ResoBond 900 using a 10 inch thin plastic smoothing knife. The flexibility of the knife makes for easier application. For smaller areas apply with a 1” smoothing knife.

See figure 2B and 2C on page 13.

Note: Immediately transfer the material in small portions to various locations of the substrate to be covered, and spread quickly. ResoBond 900 cures very fast, and allowing large volumes of the mixture to remain in the original container will drastically reduce working time.

7. ResoBond 900 should be applied at a thickness of 4-8 mils. Use a wet film thickness gauge to measure as you apply. **See figure 2D on page 13.**

8. Once the applied ResoBond 900 has achieved a moisture reading of 15% or less, ResoCoat 301 pool finish can be applied. Testing should be a combination of 15% and/or a mechanical test on the surface. When material is either smooth or slightly tacky with no black residue, it is ready for 301 application **See figure 3A on page 14**

Note: Applicators should plan on applying only enough ResoBond 900 to be shot the same day. If more ResoBond 900 is applied than you can cover in one day, apply a 2 mill layer of ResoBond 900 the following day to recharge the material. Depending on your application capabilities, larger pools may have to be done in sections.

9. ResoBond 900 has a shelf life of one (1) year when stored in unopened, tightly sealed containers in a dry location at 70° F. Do not allow liquids to freeze.

****Extreme ambient temperatures may accelerate the ResoBond 900 curing process. Metal surfaces, roof mounted swimming pools, and above ground installations may also have different curing times. In conditions when ambient temperatures are above 85° Fahrenheit, a test area should be applied to determine the proper curing time that is needed. Please contact All-Island for proper application procedures regarding projects with unusual environmental conditions.**

10. All safety requirements on both the SDS sheet and Resodyn bulletin should be followed.

ResoBond 900 Mixing Chart

	Small	Medium	Large	X-Large
Part A (gm)	70(gm)	140(gm)	210(gm)	280(gm)
Part B (gm)	30(gm)	60(gm)	90(gm)	120(gm)

ResoCoat 301 Pool Finish

1. ResoCoat pool finish must be applied to a dry ResoBond surface an ambient temperature above 40° Fahrenheit. *Note: Application rates will decrease at lower ambient temperatures due to the time and thermal energy required to preheat and maintain the substrate surface at the proper application temperature. A tent can be built over the pool with a heat source inside to maintain proper application temperatures. Please note that any enclosed work area should be monitored with a Carbon Monoxide detector.*
2. Apply the ResoCoat pool finish using the PTS-30 system. (See PTS-30 user's guide for startup procedures). **See figure 3B and 3D on page 14.**
3. Proper footwear should be worn during the ResoCoat application. Installers inside the swimming pool should only be wearing soft sole sneakers. Work boots, and any other hard sole shoe is not recommended.
4. Wall temperatures need to be monitored at all times with an infrared thermometer (IR) provided with your PTS-30. The applicator gun has a holster in which you can secure the IR and monitor the wall temperature while applying the ResoCoat pool finish.
5. Before ResoCoat is applied, the ResoBond substrate must be preheated with the applicator gun before enabling the material feed.
 - Pre-heat temperatures: 100° C- 120°C (Accurate pre-heat temperatures are mandatory to ensure adhesion).
 - Application Temperatures: 130°C- 160° C (Accurate application temperatures are mandatory to ensure proper adhesion and a quality finished coating).

6. While applying, adjust your distance from the substrate to maintain the recommended application temperature.
7. ResoCoat should be applied to a thickness of 8 mils (0.008”) combined between 301 and bonding coat. Use a wet film thickness gauge to measure as you apply. **See figure 2D on page 13**
8. Adjust the feed rate, application speed and pattern overlap as necessary to ensure complete coverage. Coverage is 15-20 sq ft per pound. PTS-30 adjustments can vary and may be needed during ResoCoat application. (See PTS-30 user’s guide for operational adjustments)
9. Any areas that did not bond entirely can be reheated (without material feed) to achieve a continuous “flowed-out” coating.
10. When finished with the ResoCoat application, scoop out the remaining ResoCoat material from the hopper on the machine and store it for the next project. Any lingering material in the hopper that cannot be properly removed use a vacuum or dry rags to dispose of leftover material. (See PTS-30 user’s guide for complete care and maintenance procedures).
11. ResoCoat pool finish has an indefinite shelf life. Material must be stored in a sealed dry location.

Important note: If any damage to the coating surface should occur while applying, simply reheat the surface to re-flow the material at the point of damage. If required, additional ResoCoat material may be added to fill more severe damaged areas.

Surface Preparation for Fiberglass/Steel/Aluminum

1. Completely drain and remove all debris from inside the swimming pool.
2. Any painted pool will have to be sandblasted and stripped of all paint on the substrate.
3. For steel, use a grinder with a steel diamond polishing wheel throughout the entire pool to roughen the surface. This can also be used to remove any remaining paints or epoxy left on the surface.
4. For fiberglass, use only an orbital sander with 80-120 grit sandpaper to roughen the surface. Any hard to reach places can be done by hand.
5. Clean the surface with acetone. After acetone wipe down, use tack rags (tack cloth, cheese cloth, etc.) to remove any loose particles or debris that still remain on the surface.
6. Use heat tape that can withstand 500° Fahrenheit. Install 2" heat tape with heavy duty 24" aluminum foil over the waterline tile. **See figure 2A on page 13.** Cover all wall fittings, drains, light niches, and any other plastic fittings with heat tape and foil. Any interior step tiles or design tiles should be covered with heat tape and trimmed to fit. The substrate must be free of dirt, dust, oil, grease, and water before Resobond 805 is applied. If ambient moisture has dampened the surface, simply vacuum any water at the bottom of the pool and wipe down any wet walls before proceeding.
7. All wall fittings, light niches, drains, and water features **DO NOT** need to be scored with the Dremel tool. Simply protect fittings with heat tape and aluminum foil.
8. Once prep work is completed, follow the guidelines that are shown for ResoBond 805 Tie-Coat application procedure.
9. Once ResoBond 805 is applied, follow the guidelines that are shown for the ResoCoat 301 Pool Finish application procedure.

Fiberglass Steps on Vinyl Lined Pools:

- Follow the same steps as outlined for fiberglass pools.
- Use heat tape and aluminum foil to protect the edges where the steps meet the liner and the coping.

****If inclement weather is in the forecast, a tent can be set up to keep the job moving. Be sure to have enough ventilation in the pool to allow the material to cure. Please note that any enclosed work area should be monitored with a carbon monoxide detector.**



ResoBond 805 Tie-Coat

Fiberglass/Steel/Aluminum Bonding Agent

1. Maintain an ambient and surface temperature above 50° Fahrenheit during mixing, application, and curing time.
2. **ALWAYS** pour the resin (Part B) into the hardener (Part A). Both units are pre-measured for correct mixing ratio.

Note: Using a gram scale, for small batches mix 2.256g of resin (part B) into 1g of hardener (part A)

3. ResoBond 805 must be mixed with a paint stirring drill bit for at least 3 minutes at a slow speed to avoid air bubbles from forming.

Note: Do not mix more than one gallon of ResoBond 805 unless you are equipped to do so. ResoBond 805 cures very quickly, and needs to be applied as soon as it is mixed. If not applied immediately, ResoBond 805 will solidify and become disposable.

4. Apply ResoBond 805 with microfiber paint rollers and disposable paint tray liners. A paint brush can be used for small areas and hard to reach places. Apply evenly and avoid streaking/drips. **See figure 3C on page 14.**

Note: When ambient temperatures are high (above 85° Fahrenheit), cold water or ice can be put in between paint trays in order to keep the ResoBond 805 cool. This will slow down the curing time and give you more time to apply.

5. ResoBond 805 should be applied at a thickness of 6-8 mils. Use a wet film thickness gauge to measure as you apply. **See figure 2D on page 13.**
6. Once the applied ResoBond 805 has cured, ResoCoat 301 pool finish can be applied.

Note: Applicators should plan on applying only enough ResoBond 805 to be shot the same day. If more ResoBond 805 is applied than you can cover with ResoCoat 301 in one day,

apply a 2 mill layer of ResoBond 805 the following day to recharge the material. Depending on your application capabilities, larger pools may have to be done in sections.

7. ResoBond 805 tie-coat has a shelf life of one (1) year when stored in unopened, tightly sealed containers in a dry location at 70° F. Do not allow liquids to freeze.

****Extreme ambient temperatures may accelerate the ResoBond curing process. Metal surfaces, roof mounted swimming pools, and above ground installations may also have different curing times. In conditions when ambient temperatures are above 85° Fahrenheit, a test area should be applied to determine the proper curing time that is needed. Please contact All-Island for proper application procedures regarding projects with unusual environmental conditions.**

ResoBond 805 Mixing Chart

	Small	Medium	Large	X-Large
Part A (gm)	1	100	200	
Part B (gm)	2.256	225.6	451.2	

Picture Directory 1



Figure 1A



Figure 1B



Figure 1C

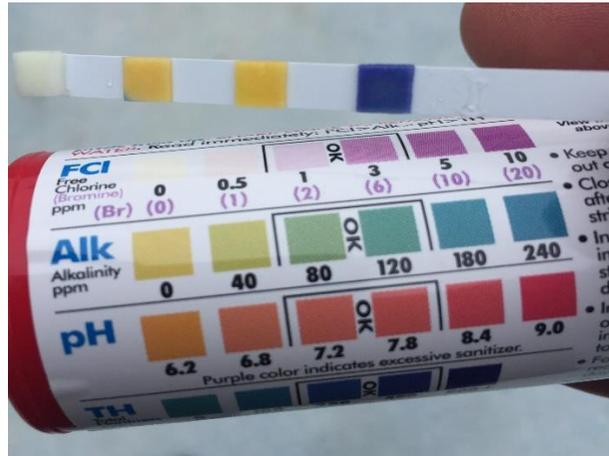


Figure 1D

Picture Directory 2



Figure 2A



Figure 2B



Figure 2C

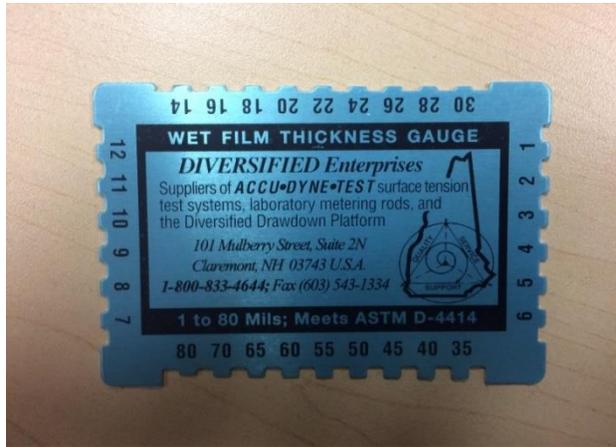


Figure 2D

Picture Directory 3



Figure 3A



Figure 3B



Figure 3C



Figure 3D

Troubleshooting:

Here are some simple solutions to check before contacting your service representative. Use the following chart to resolve operational problems. If the problem persists contact your authorized service representative.

PLEASE REFER TO CHAPTER 6: TROUBLESHOOTING IN PTS-30 USER MANUAL FOR OTHER PTS-30 ISSUES/SOLUTIONS



Do not attempt to open secured panels or disassemble any component. Attempting to do so will void the warranty. Access to internal compartments in the cart or applicator may cause bodily damage or unsafe operating conditions. Only authorized service professionals are permitted to perform maintenance beyond the scope of this troubleshooting guide.

Description of Problem	Solution
PTS30- Gun not spraying material in a fluid manner. "Splattering" during Resocoat application.	<ol style="list-style-type: none"> 1. Check for clogged or wet hopper membrane. 2. Check Filter/Dryers not serviced or plugged. 3. Too much material in hopper. 4. Buildup of residual material in Machine causing gun/lines to clog. 5. Settings on machine incorrect. 6. Low air supply at source. 7. Improper applicator temp.

PTS30-Low Air Pressure	<ol style="list-style-type: none"> 1. Kink or restriction in umbilical assembly between PTS30 and cart. 2. Air separator/filters dirty/clogged/defective. 3. Check air fittings for restriction. 4. Collapsed/kinked air hoses. 5. Poor compressor performance. 6. Compressor output capabilities not capable of meeting specifications (30 cfm/100psi constant) for machine to operate.
Moisture Meter Not Reading Moisture Level Moisture Button Stuck or Not Fully Depressed	<ol style="list-style-type: none"> 1. Manually depress plastic button when reading moisture level.
Description of Problem	Solution
ResoCoat 301 peeling after being applied.	<ol style="list-style-type: none"> 1. Moisture reading too high when sealer applied. 2. Substrate surface not cleaned properly. 3. ResoBond not mixed properly. 4. Incorrect application temperature. 5. Applicator being used at incorrect distance from substrate. 6. Substrate repairs done with product that is not specified.(An epoxy/polymer non porous filler MUST be used for substrate repairs)
Bubbling in ResoBond when mixing	<ol style="list-style-type: none"> 1. Speed of mixer is too high.
Bubbling in ResoBond 805 during application	<ol style="list-style-type: none"> 1. Apply lighter coats with more frequency. 2. Have an assistant follow up with roller and go over bubbles before dry. 3. Surface may be too smooth for ResoBond to adhere to with traditional roller cover, switch to a foam roller cover.

Color of ResoCoat not consistent when dry.	<ol style="list-style-type: none"> 1. Improper preheat/temperature of substrate for application. 2. Not following correct spray/application procedure. 3. Applying material too thin. 4. Using material from different batches. 5. Gun not calibrated to proper operating temp (450C-500C) with temp probe at beginning of application process. 6. Applying too fast or too slow.
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Description of Problem	Solution
Topcoat has "rough" texture. (Not using SureStep)	<ol style="list-style-type: none"> 1. Application temperature too low during application.
SureStep surface is too smooth	<ol style="list-style-type: none"> 1. Ensure large grain material additive is at specified 75/25 mixture. (25% Sure Step added to ResoCoat 301)
Cannot reduce moisture levels to proper specification	<ol style="list-style-type: none"> 1. Fans not being used to dry out substrate or not directed properly. 2. Substrate not covered overnight. 3. Too much moisture in ambient atmosphere for application.



ResoCoat Maintenance Procedures

ResoCoat polymeric pool finish is one of the most innovative interior pool finishes in the pool industry. Pool maintenance is a critical part of owning a pool regardless of the type of interior pool finish that is installed. Follow these few simple guidelines to keep your polymer pool finish looking spectacular for years to come.

Chemicals: Like traditional pool interiors any chemical additions should be added to the deep end of the pool. Any granulated powder that accumulates on the bottom of the pool from chemical additions should be brushed until dissolved. Calcium hypochlorite is not recommended for super chlorination, liquid chlorine is ideal.

Vacuuming: Use concrete vacuum heads with white wheels or vinyl vacuum heads when vacuuming the pool.

Brushes and Nets: Nylon bristle brushes are the only style brush that should be used on a polymeric pool finish. No steel brushes. All nets, leaf rakes, and maintenance tools should have a plastic protective coating around any metal frame.

Automatic Pressure Cleaners: Any pressure cleaner used on our polymeric pool finish should not have any abrasive bristles/plastic on the bottom of the cleaner. All cleaners used on this surface should have white wheels only.

Sun Shelf Furniture: Any furniture used for a sun shelf platform will need white rubber stoppers on the bottom of the chair legs.

Footwear: All black hard soled footwear should be removed before entering the pool whether the pool is empty or full.

Pressure Washers: Pressure Washers should never be used on a Resodyn pool finish.