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About Us

Established in 1998, Southern Polyurethanes is a two-generation family-owned premium coatings manufacturer. Our goal is to provide you with the finest clears, primers, solvents, and additives available today using only the best raw materials and latest technologies. We manufacture all our products in-house in our Blairsville, GA facility so we know our products are comparable if not superior to any other coating in their class at any price in the automotive aftermarket.

Our Universal Clear has been featured on many world-class restorations include Pebble Beach Concours winners. Over the last two decades, thousands of rods, bikes and other restorations have been finished with this clear as well. Universal Clear is easy to spray, hard to run and buffs easy even months after application.

Our Euro Clear is well known and respected from body shops to the custom low rider market for its depth, gloss, and friendliness for heavy flakes. It is also a favorite among mobile repair specialists and wood workers.

Our Production Clear is a budget-friendly, high-medium solids two-coat clear that is popular amongst body shops and DIYers alike.

Speed Clear is quickly making a name for itself for its ease of buffing, gloss, and lack of die-back and solvent pop. Like all our other clears, Speed Clear has excellent UV holdout.

We are known on enthusiast message forums worldwide for our Epoxy Primer. All colors have outstanding adhesion to metals and aluminum, excellent chemical resistance, outstanding corrosion protection and can be easily sanded by wet sanding, dry sanding, or DA sanding. You can also apply body filler and 2K primer over our Epoxy Primer for up to 7 days without first sanding.

Our 2K Primers have exceptional filling properties, sand in 45-60 minutes and do not require the use of a paint sealer.

Some suppliers copy the descriptions of our services and the descriptions of our products; however, no supplier duplicates the quality of our services or the quality of our products.

Plastic Adhesion Promoter

2.1 VOC

Product Number:

600-4 (quart)

This product can be used for all unprimed plastic parts, interior or exterior, such as TPO, TEO, PE, PP, UR, etc.

Mixing:

Ready to spray

Do not add any other product or reducer to this product.

Exception:

You can activate this product with SPI's 6501-4 activator at a ratio of 5:1(5 parts 600-4 to 1 part 6501-4). This is an option for the most difficult to paint bumpers.

Prepping and Spraying:

For sanding and cleaning use a gray scuff pad in conjunction with a sanding paste product like Presta Scuff Stuff or equivalent brand. Sand the entire bumper then rinse with water and allow to dry. Once dry wash with SPI's 700-1 Waterborne Wax and Grease Remover and dry the bumper. Let the bumper sit for 60 minutes. **Do not use a solvent based or mineral spirits wax and grease remover!**

Using a clean air line blow dry the bumper then tack cloth the bumper. Apply **one medium wet coat** to the bumper or plastic substrate.

After allowing to dry for 30 minutes apply the coating product of your choice such as epoxy, 2k primer or 2k sealer. For best long-term results always use an epoxy.

You must coat this product within 1 hour! If you exceed 1 hour the adhesion promoter will need to be scuffed and another coat of adhesion promoter will need to be sprayed.

Notes:

This product will work with any high-grade paint system **but will not work with acid based etch primers or lacquer type coatings.**

Waterborne Wax and Grease Remover

Product Number:

700-1 (gallon)

A very high-grade waterborne wax and grease remover made to clean the toughest jobs before painting. This product is formulated as a medium-slow dry wax and grease remover. It is fast enough for small panels and slow enough for washing a semi fender

The first time you use this product you will notice a significant difference in how the surface feels compared to a regular solvent-based wax and grease remover! Great for use on bare metal, fiberglass, aluminum, or sanded clears. Do not use on basecoat.

After wiping and drying 700-1, wait 45 minutes or longer before proceeding.

Wax and Grease Remover – Solvent

Product Number:

710-1 (gallon)

710-1 is a solvent-based wax and grease remover that is a very high-quality product with only the best solvents used. 710-1 was not made to replace the cheap cleaners out there but to do an exceptional job which high-quality shops need. This is a medium-dry wax and grease remover designed to give the painter time to clean the panel without fear of the product drying too fast. Great for removing wax, grease, glues, adhesives and more.

Urethane Grade Reducers

Product Numbers:

860-1 Fast (gallon)

870-1 Medium (gallon)

870-4 Medium (quart)

885-4 Slow (quart)

885-1 Slow (gallon)

895-1 Very Slow (gallon)

0860-1 Fast Low VOC (gallon)

0870-1 Medium Low VOC (gallon)

0885-1 Slow Low VOC (gallon)

These reducers are top of the line and may be used in **ANY** paint system which calls for a polyurethane or acrylic urethane reducer. The Very Slow Reducer will dramatically help in the 95+ degree weather for many clears.

Polar Accelerator

Product Number:

900-4 (quart)

Polar Accelerator may be used in **ANY** urethane or polyurethane clear to speed up the dry time. Will not cause dieback or cause the clear to buff hard. May also be used in **ANY** 2K type urethane primer. This product will decrease pot life significantly in any product. 2k primer pot life should be watched closely when using.

Mixing:

Add 1-4 oz per mixed quart of clear or 2K type urethane primer.

Blending Solvent

Product Number:

915-4 (quart)

This blending solvent is very easy to use for burning in single stage or clear coat edges. It's a pure solvent so you can carry the solvent past your edge and any leftover product can be poured back into the original can. No gun cleanup is needed after use.

Mixing:

We do not recommend any products to be added to this product.

Spraying:

Spray Blending Solvent between 15 and 25 psi!

Option 1: A small area to burn in less than 6 inches

Spray your base and with a second gun immediately spray one medium coat of blending solvent over the entire area. Let it flash and re-spray the base until covered using this blending procedure on every coat. Apply clear and immediately spray a medium coat of blending solvent over the entire area. Let it flash and repeat coats of clear followed with blending solvent as needed.

Option 2: A large area of clear or single stage blending up a sail panel

Spray the first coat of clear and immediately spray a medium coat of blending solvent over the edge of clear. Let it flash and repeat coats of clear each followed with blending solvent as needed.

Option 3: A large area of clear or single stage blending up a sail panel

Spray all your coats of clear and once finished spray a medium coat of blending solvent over the final edge.

Helpful Ideas:

At the end of the sanded area, while using a shop towel with a coarse rubbing compound, hand buff a couple of feet out from the repair. Do not use the buffer or a fine compound/polish. Use the cutting compound you would use on your first cut when buffing. Clean the area with wax and grease remover

Your last coat of clear should go just past your sanded area and into the hand buffed area, so there is no chance of rolling back the clear from buffing too hard.

After you spray your clear use the blending solvent within 3 minutes, preferably right away but most important, spray a medium light to medium coat of the blending solvent. Do not put a very wet coat on, as you will be further ahead to do a second application instead of one wet one. Usually a second coat is not needed but you will know within 2-3 minutes.

Urethane Retarder

Product Numbers:

925-4 (quart)

930-4 Low VOC (quart)

Mixing:

Primers: Add 1-2 oz per mixed quart

Clears or Single Stage Paints: Add 1-3 oz per mixed quart.

Urethane Retarder is a painter's best friend, and every painter should have a can on the shelf for emergencies.

Primers:

In the summer when 2K primers tend to dry too fast, add 1-2 oz per mixed quart of primer to extend that dry time. This works very well when spraying an all-over in the 80-105 degree range and can stop potential pin holing and dry edges.

Clears or Single Stage Paints:

For hot weather and all-overs in the 80-105 degree range, add 1-3 oz per mixed quart to slow the flash down or to prevent dry spraying.

We have all had the problem of spraying that last coat of clear, usually on a hood or deck lid, and out of nowhere comes solvent pop. Without waiting, pour the clear back into the mixing pail and add 10-50% retarder. Again, without waiting spray one wet coat or two if needed to wipe out the problem. This one step will save an extra day's work to fix the problem panel.

Custom work where three or more coats are used, adding 10% retarder to the last coat of clear will make an excellent flow coat. Some shops use as much as 50% retarder but be careful until you know the product because it will flow!

We have feedback that some custom shops use 5-10% in every coat of clear for all-overs as this is truly a product you can experiment with and will save you a lot of money down the road.

We do not recommend using this product when temperature is below 70 degrees!

Liquid Flattening Agent

Product Number:
950-4 Quart

SPI Liquid Flattening Agent Qualities:
SPI Flattening Agent is a high strength semi-gel type product that utilizes the finest raw flattening agent available. This product is very high strength and stays in suspension well, though always pre-mix or pre-shake before adding to a coating

Reducer Selection:
If you are using this Liquid Flattening Agent in a coating that requires reduction, always use the proper speed activator and/or urethane reducer in that coating.

Mixing:
Mix or shake this product thoroughly before each use! Then gradually add 950 Liquid Flattening Agent until the desired flatness is achieved and verified on a test spray-out panel.

Normally 20-40% of activated material is what is commonly used and for a low sheen, 20-30% will be a very good starting point.

Spray a Test Panel First:
As with any flattener, always spray a test panel first and allow it to totally dry for full flattening effect as no two products are alike and everyone's idea of semi-gloss or flat is different! Different coatings will require different amounts of flattener. True flattening will always take about 24 hours after spraying which is why you always do a test panel first.

Common Mistakes:

1. Not allowing the first coat to properly flash (30 min) before applying the second coat
2. Spraying back-to-back wet coats
3. Using wrong speed reducers and activators will also counteract effect
4. Not allowing enough dry time to check for proper flatness before adjusting
5. Seeing 'snowflakes' means too much air pressure

All these common mistakes will override the properties of the flattening agent!

General guidelines:
Customer feedback on Universal Clear for a **totally flat application:**
Mix one quart of clear with one quart of activator and one quart of flattening agent. Lower your normal clear spraying air pressure by 5-10 lbs or just high enough to spray clear the way you want.

Turbo 2K High Build Primer

2.1 VOC

Product Numbers:

6300-1 Gray (gallon)

6310-1 Black (gallon)

6320-1 White (gallon)

6350-4 Activator (quart)

Mixing: 4:1:1

Mix 4 parts High Build Primer to 1 part Activator to 1 part Urethane Reducer. Use SPI Urethane Reducers 870, 885, and 895 or equivalent Low VOC reducers to reduce this primer. The amount of reducer you add controls the amount of film build you will receive. You may mix it at 4:1 if you need a higher build.

Pot Life:

60 minutes at 70 degrees and pot life is decreased if you do not use reducer!

Do not leave mixed product in the paint gun for more than 30 minutes.

Spraying: Gun tip recommendation 1.8 – 2.5

Remove any internal gun strainers. Spray one wet coat and let it flash 5 minutes then apply the next coat. It is very important that each coat flashes properly!

Sanding:

With the **metal temperature** at 75 degrees this primer can be wet sanded or dry sanded in 45-60 minutes. If sanded primer has set more than 24 hours you must scuff first with a gray scuff pad or equivalent before applying another product.

Summer Heat:

With higher temperatures pay close attention to the grade/speed of reducer that you use! Always go with a slower grade. A good rule of thumb is to use the grade/speed that you would use in a basecoat for the same size area with the current temperatures.

This primer sands in 45-60 minutes like our other 2K primers, but it also incorporates the newer hyper cure resins.

2K Urethane Sealer

2.1 VOC

Product Numbers:

6401-1 Gray (gallon)	6401-4 Gray (quart)
6402-1 White (gallon)	6402-4 White (quart)
6403-1 Black (gallon)	6403-4 Black (quart)
6501-4 Activator (quart)	6501-6 Activator (half pint)

Mixing: 4:1:1

Mix 4 parts Urethane Sealer to 1 part Activator to 1 part Urethane Reducer. Use SPI Urethane Reducers 870, 885, and 895 or equivalent Low VOC reducers to reduce this primer.

Can also be mixed up to 4:1:2 to fit your spraying needs.

This product can be used as a 2K primer by mixing it 4:1 without reducer.

Do not apply this product over bare metal.

Prepping:

One wet coat of this sealer mixed 4:1:1 will fill 320 dry sand scratches, however we recommend first preparing the area with 400-600 grit before spraying.

Spraying: Gun tip recommendation 1.3 – 1.4

Remove any internal gun strainers. Spray only one wet coat of sealer over the properly prepped area and let it set for 10 minutes up to 2 hours before applying color for best results. After 4 hours, the sealer must be sanded. To fix imperfections after spraying sealer it may be sanded in 15-30 minutes depending on temperature and grade of reducer used. It's very important to use the proper grade/speed urethane reducer. On large areas we recommend using the slowest speed reducer possible.

2K Regular Build Primer

2.1 VOC

Product Numbers:

6520-1 Gray (gallon) 6520-4 Gray (quart)

6530-1 Black (gallon)

6501-4 Activator (quart) 6501-6 Activator (half pint)

Mixing: 4:1

Mix 4 parts Build Primer to 1 part Activator. This primer can be reduced with SPI Urethane Reducers 870, 885, and 895 or equivalent Low VOC reducers. Do not reduce more than 25%. **Caution! Due to the thickness of this primer it is very important that you completely mix the activator in with the primer. MIX ONE FULL MINUTE!**

Pot Life:

60 minutes at 70 degrees. Do not leave mixed product in the paint gun for more than 30 minutes.

Spraying: Gun tip recommendation 1.8 – 2.5

Always coat bare metal with epoxy first! Remove any internal gun strainers. Mix only what you immediately need and clean the gun when you are finished. Spray a full wet coat and let it flash. Spray a total of two to three coats being sure to let each coat flash before spraying the next coat. Flash times will vary from 3-5 minutes depending on temperature.

Filling:

This primer is the same as our High Build Primer except it will spray a little thinner. This is an excellent primer for the high-quality shop that does not need a very high filling primer. This primer is made to fill like the major paint manufacturers best 2K primers. A sealer is not required for this primer prior to painting.

Sanding:

Depending on how you applied it and current temperature this primer should be ready to sand in 45-60 minutes. If sanded primer has set more than 24 hours you must scuff first with a gray scuff pad or equivalent before applying another product.

Winter:

Add 2-4oz of SPI 900-4 Polar Accelerator per sprayable quart in shops with inadequate heat.

Summer:

Add 2-6oz of SPI 925-4 Urethane Retarder per sprayable quart if the primer is drying too fast.

Epoxy Primer

2.1 VOC

Product Numbers:

6600-1 White (gallon)	6600-4 White (quart)
6610-1 Gray (gallon)	6610-4 Gray (quart)
6620-1 Black (gallon)	6620-4 Black (quart)
6630-1 Red Oxide (gallon)	6630-4 Red Oxide (quart)
6640-1 Sandstone (gallon)	6640-4 Sandstone (quart)
6650-1 Olive (gallon)	6650-4 Olive (quart)
6700-1 Activator (gallon)	6700-4 Activator (quart)

SPI Epoxy Primer is one of the finest available and great for use on any type of metal if properly sanded and cleaned. **This epoxy eliminates the need for an acid-etch primer**. Use this epoxy on bare fiberglass or SMC before applying body fillers or 2k primers for best long-term results.

Mixing: 1:1

Mix 1 part Epoxy Primer to 1 part Epoxy Activator.

30 minutes of induction is recommended but not required.

4 hours of induction needed for maximum UV holdout if black epoxy is to be left uncoated.

If reducing the epoxy, induce it for at least 30 minutes.

When you first open the epoxy primer, it is VERY important to make sure that all settling on the bottom of the can is mixed up very well with a paint stick. If not mixed properly, you can destroy the epoxy. Paint shakers **DO NOT** perform well with settled epoxy so always use a paint stick first, then move to a paint shaker.

We strongly recommend when you activate the epoxy to stir and mix very well before letting it sit/induce for 30 minutes. Stir once again before spraying and the longer you wait between spraying your coats of epoxy the better.

Pot Life:

72-120 hours depending on humidity and temperature (stored in a sealed container, never store in refrigerator)

Prepping the Surface:

When prepping for epoxy always sand with 80 grit DA paper for bare metal, sand with 180-320 for paint or primer. Remove any weld through primer. Metal must be clean of all rust, oils, and any films. **Never** clean metal with lacquer thinner, acetone or reducers of any kind. **Clean**

surface with SPI 700-1 Waterborne Wax and Grease Remover and let sit for 45-60 minutes before applying epoxy.

If you have any questions on how to prep any type of substrate, please call our tech line before beginning.

Body Fillers:

Seam sealers are typically used over epoxy. Fiberglass filled fillers or other structural products are used before epoxy primer.

On any restoration, it is **always best to apply the body filler over the epoxy** rather than applying filler over bare metal for best adhesion and corrosion protection. After applying two coats of epoxy wait overnight before applying the body filler. The epoxy does not need to be sanded before applying the body filler for up to 7 days if it does not go outside.

If time allows, it's always best to apply filler over the epoxy after it has set for 24-48 hours.

If you choose to do the filler work over bare metal, the epoxy can be sprayed over the sanded body filler.

Spraying: **Gun tip recommendation 1.4 – 1.5. Use a base / clear gun.**

Remove any internal gun strainers. Spray two wet coats for normal applications. For special projects such as restorations, spray one coat and let it flash 30 minutes or longer at 70 degrees or higher. Then spray a second coat for maximum corrosion protection. For frames we recommend three coats to make sure you do not have any thin spots as frames tend to be tougher to spray. **You do not need to top-coat our epoxy on frames, wheel wells, firewalls, or suspension components.**

For older corvettes such as early 70's and older, 3 wet coats of epoxy will perform best. Any cleaning of the raw glass should be allowed to sit 24 hours or longer before applying the epoxy. Apply one wet coat of epoxy, let it sit 1-4 hours then spray a second coat. If a third coat is desired again wait 1-4 hours before applying the next coat. Base directly over epoxy after a minimum of 4 hours when mixed 1:1, it is recommended to wait overnight on restorations.

This epoxy does not need to be sanded if it is **primed** over within 7 days. Epoxy can be recoated up to 14 days later without sanding. Always primer over the epoxy within 7 days. After 7-14 days you can sand with 180 grit and apply filler or primer. After 14 days, sand the epoxy with 180 grit and re-apply the epoxy.

Polyester Primers:

Wait at least 48 hours before applying a polyester primer.

Wet and Dry Sanding:

If you need to sand a large area of epoxy, the epoxy will dry sand best after 12-16 hours. Wet sanding with moderate pressure can be done after about 4 hours depending on the amount of epoxy applied, air temperature and substrate temperatures.

To use as a Paint Sealer:

To use this epoxy as a paint sealer, mix it 1:1 with activator and reduce 10-50% with the proper temperature range urethane reducer (this is very important), induce for 30 minutes and spray with your base/clear gun. Spray one wet coat ONLY, let it sit 2 hours then apply paint. For sealing of a potential problem paint job, apply two coats of epoxy with proper flash times between coats and let it sit overnight before painting. You may basecoat over Epoxy Primer reduced as a sealer from 2-24 hours without sanding. After 24 hours scuff with a gray scuff pad or equivalent first.

Cold Weather:

In cold shop conditions this primer can and will go dormant. Keep heat on the car for 24 hours after spraying with an absolute minimum metal temperature of 65 degrees. Also, when it's cold it will help to mix the primer and let it induce 60 minutes before spraying. Application of any epoxy in cold weather can destroy a paint job. There is no way to accelerate the curing process.

Bottom line is if the car metal or primer contents cannot be kept at 65 degrees or higher as well as the shop temperature for the next 24 hours after spraying, **DO NOT** spray our epoxy as you may end up having to redo all your hard work.

Also, temperature of the epoxy in the can is just as important so store the epoxy in a warm place for at least 24 hours before spraying.

For $20 you can buy a laser temperature gun to take readings of the can and the car panels, and this will save you from guessing.

Once again if you have any questions regarding the application of SPI Epoxy Primer in cold weather please call us first. Metal temperature when you spray epoxy is critical and must be at least 65 degrees as well as the contents of the epoxy and activator cans!

Neutralizing Skyco Ospho:

Ospho is the only rust treatment we recommend **IF** needed under epoxy primer.

Apply Ospho as needed and leave it on as long as you like.

When you are ready to neutralize the dry Ospho, apply one more coat of Ospho over the area to be neutralized and let it set for 5 minutes. Using a clean towel and water, wash off the wet Ospho like you are washing a car then dry with a clean towel.

A dry acid film cannot be neutralized or sanded off.

Neutralizing a soda blasted vehicle:

Thoroughly wash every square inch of the vehicle using Dawn Original Formula, Purple Power Degreaser, or Simple Green mixed with water and a clean towel. Wash every square inch of the vehicle like you are washing a car. Rinse off with clean water then dry.

Media blasted vehicles:

Unlike sandblasting, some other forms of media blasting do not leave a coarse enough surface for the epoxy so sand the vehicle with 80 grit on a DA sander. All we need is a decent scratch, so this process shouldn't take more than 60 minutes to do the entire exterior of a typical vehicle.

Important Notes:

Use the activator within 1 year of opening.

Remove any cup strainers or filters before spraying.

Do not regulate air pressure at the wall, only at the gun.

You have 7 days to apply 2k Primer or body filler over epoxy without sanding first.

Between 7 and 14 days it must be sanded with 180 grit first.

After 14 days the epoxy must be sanded with 180 grit and reapplied before applying another coating over the epoxy primer.

If the vehicle does not leave the booth, you can apply any premium quality basecoat or single stage up to 24 hours after the epoxy without sanding first.

NEVER use SPI Epoxy Primer over acid etch/wash primers or rust converters- it will not work and we strongly suggest if you want to use a rust converter that you use the rust converters paint system instead of SPI.

Acid treatments should not be used unless you know the proper way to neutralize them. Again, call us to be safe as acid films can cause an adhesion loss.

We only recommend using Ospho's acid treatment if you even need one.

For bare metal or aluminum DO NOT use any other cleaner except for SPI's 700-1 Waterborne Wax and Grease Remover.

2K High Build Primer

2.1 VOC

Product Numbers:

8000-1 Gray (gallon)

7001-4 Activator (quart)

Mixing: 4:1

Mix 4 parts Build Primer to 1 part Activator. This primer can be reduced with SPI Urethane Reducers 870, 885, and 895 or equivalent Low VOC reducers if less millage is desired. Do not reduce more than 25%.

Caution! Due to the thickness of this primer it is very important that you completely mix the activator in with the primer. MIX ONE FULL MINUTE!

Pot Life:

60 minutes at 70 degrees. Do not leave mixed product in the paint gun for more than 30 minutes.

Spraying: Gun tip recommendation 2.0 – 2.5

Always coat bare metal with epoxy first! Remove any cup strainers or filters before spraying. Mix only what you immediately need and clean the gun when you are finished. Spray one wet coat and let it flash 5 minutes then apply a second coat. You can apply as many coats as you like but it's very important that each coat flashes before applying additional coats.

Sanding:

Depending on how High Build Primer is applied you should be able to sand this product in 45-60 minutes. Keep in mind this time changes with temperature. This primer sands good but to make it easier shoot your coats to be blocked non-reduced and reduce your final coat 10-15% for less build and less final blocking. If sanded primer has set more than 24 hours you must scuff first with a gray scuff pad or equivalent before applying another product.

Winter:

Add 2-4oz of SPI 900-4 Polar Accelerator per sprayable quart in shops with inadequate heat.

Summer:

Add 2-6oz of SPI 925-4 Urethane Retarder per sprayable quart if the primer is drying too fast.

2000 Series Basecoat

Product Numbers:

2000 Series (gallon and quart)

Premium basecoats that are very user friendly, easy to spray and wet sand very well (only if necessary).

SPI basecoat should only be reduced with SPI 870-1, 885-1 or a Low VOC equivalent for proper adhesion and color control.

Mixing: 1:1

Mix 1 part basecoat to 1 part urethane reducer. Slow reducer is recommended for black base.

For best performance, SPI basecoat can be activated with any SPI clearcoat activator at the rate of 1oz per mixed/sprayable quart of basecoat.

Prepping:

If typical prepping techniques are used, this basecoat will cover 400 grit sand scratches. SPI basecoat is compatible with any 2K sealer or epoxy primer used as a sealer.

Spraying: Gun tip recommendation 1.2 – 1.4

With proper gun adjustment, this basecoat should be sprayed using wet coats.

Insurance Type Work: Let each coat flash 5-10 minutes before applying the next coat.

Restoration or Custom Work: Let each coat flash 30-60 minutes between coats.

If sprayed properly two coats should cover and a third coat is sprayed for peace of mind however this will vary based on color of substrate/sealer used and basecoat application by the painter.

Insurance Type Work: We recommend the last coat of base flash 15-30 minutes before applying clearcoat.

Restoration or Custom Work: We recommend the basecoat sit overnight. The following morning tack off the base and apply the clearcoat. Allow the clear to flash 30 minutes per coat.

Repairs: If spot repairs are required after spraying our black basecoat, only wet sand the repair area with 1500 or 2000 grit. 600 to 2000 grit can be used for our other colors.

Matte Black Single Stage

2.1 VOC

Product Number:

2201-1 Matte Black (gallon)

SPI Matte Black is a premium grade **2-coat** polyurethane single stage.

Mixing: 4:1 - 6:1 - 8:1 (This product can be mixed as high as 2:1 if more gloss is preferred.)

Mix with one of the following activators.

2102-4 Medium (quart)

2103-4 Slow (quart)

2104-4 Very Slow (quart)

4:1 gives you an egg-shell finish. 6:1 mix you will have a nice flat black (most popular choice). 8:1 mix and you will have black with zero shine leaning to a slight gray scale, but it's only noticeable if painted on a panel next to the other mix ratios of Matte Black. **Spray test panels first** so you choose the right mixing ratio for your application.

Actual flatness may not start showing up for an hour or two after you spray the Matte Black and total flattening results will occur in 6-12 hours so it's always very important to do a sample spray out and view the results the next morning. Only if needed the flatness may be adjusted by mixing other SPI clearcoats that are pre-activated then combined with pre-activated Matte Black to produce the gloss you desire.

Prepping:

Sand the surface with 400-800 grit wet or dry paper. Clean the vehicle with SPI 700-1 Waterborne Wax and Grease Remover or SPI 710-1 Solvent based Wax and Grease Remover then let the vehicle sit for 45 minutes before applying the single stage paint.

Spraying: Gun tip recommendation 1.3 – 1.5

Spray one medium wet coat with a 50% overlap with proper gun adjustment and application and the Matte Black should be laid out orange peel free. When spraying this product simply pretend you are spraying a clearcoat. This product cannot streak unless you add reducers, fast activator or rush the recommended paint process.

Stir extremely well with a paint stick as flattener will settle in the bottom of the can! Failure to do so can result in ruined paint.

Once the first coat has been sprayed, note the time and wait exactly 30 minutes before applying the second coat. Do not spray a third coat!

This product cannot be buffed or waxed without affecting the gloss level and possibly destroying the paint finish.

Do not use fast activator or urethane reducer with this product!

Single Stage Polyurethane Color

Product Numbers:

4200 Series (gallon)

A premium single stage paint that is easy to spray and will wet sand and buff very well the next day after spraying (only if necessary).

This single stage has very good chemical resistance and stone chip resistance.

Mixing: 4:1

Mix 4 parts single stage to 1 part of the following activators.

2102-4 Medium (quart)

2103-4 Slow (quart)

2104-4 Very Slow (quart)

Prepping:

Sand the surface with 400-800 grit wet or dry paper. Clean the vehicle with SPI 700-1 Waterborne Wax and Grease Remover or SPI 710-1 Solvent based Wax and Grease Remover then let the vehicle sit for 45 minutes before applying the single stage paint.

Spraying: Gun tip recommendation 1.3 – 1.5

With properly adjusted gun spray one wet coat. When finished check time and wait exactly 30 minutes before spraying second coat. Do the same for the third coat if needed.

The last coat of color can be integrated with any SPI pre-activated clear mixed with pre-activated single stage at any ratio, although the most common is 1:1.

This single stage can also be clear coated after sitting overnight with any SPI clear. If done within 24 hours simply tack it and shoot it.

Dry Times:

With the slow activator the first coat will flash in 10-30 minutes depending on air and substrate temperature.

Baking: Low Temperature Baking Single Stage

No Purge! Bake for 10-15 minutes at 110-120 degrees. This obviously depends on air temperature and activator used.

Never bake this Single Stage over 120 degrees!

Repairing:

After 4 hours at 70 degrees or better you should be able to make repairs without any problems. If the Single Stage was baked, repairs should be made 60 minutes after the vehicle has cooled to room temperature.

Buffing:

Next day wet sand, if possible, pull the vehicle out in the sun for about 4 hours, pull it inside and when the vehicle cools buff as usual. This will make buffing a little easier.

Spraying in Non-Baking Paint Booths:

The booth fan MUST be shut off within one minute after the overspray is gone!

DO NOT spray this single stage until all precautions have been read!

1. Never add any fisheye eliminators to this Single Stage

2. We do not recommend ceramic coatings over any SPI product due to the extensive range of available products and lack of long-term testing.

3. Bake at temperature and cycles **not higher** than 120 degrees for 10 minutes or 110 degrees for 15 minutes. **No purge time is needed** before bake cycles.

4. If allowing to air dry the **fan must be shut** off within one minute after the overspray has been evacuated from the last coat of Single Stage.

5. The mixed **pot life** will be about 2-3 hours depending on the temperature in the shop.

6. Use only a pure carnauba wax or a fresh paint safe hand glaze. Only after 90 days of sunlight can a traditional wax be used.

7. If more than 2 coats are to be applied, **wait 30 minutes** between every coat of Single Stage.

Intercoat / Color Blender Clear

Product Numbers:

2020-1 Intercoat Clear (gallon) 2020-4 Intercoat Clear (quart)

This Intercoat Clear works with all high-quality base systems. Lower grade systems should be spot tested before using. May be used as a jamming clear to match OEM under hoods and deck lids with a semi-gloss appearance. May be sprayed over a properly prepped panel before applying metallic base for ease of blending. May be mixed with the base for leveling metallic for blending. Can also be used in between coats of colors when doing multiple colors or stripes or graphics.

Mixing: 1:1 up to 1:2

For normal applications, this clear can be reduced 1 part Intercoat Clear to 1 part reducer up to 2 parts reducer. Most applications are going to work well with the 1:1 mix though you can adjust the mixture to suit your needs.

The resin system in this blending clear is top of the line. Because of this the selection of reducer is critical as far as quality and temperature grade. Do not use a low-grade urethane reducer in this product and for safety sake we recommend SPI 870, 885 or 895 reducers depending on the temperature you will be spraying in. The reducer used should be the same speed as your color reducer.

Activator:

Using an activator with this clear is an option open to you. **We feel it's always advisable to use an activator in a basecoat or Intercoat Clear.** If you decide to activate this product, you can use any SPI clearcoat activator. Just 1oz of activator per sprayable quart will make a significant difference in cure time, tape time and repair time.

Spraying: Gun tip recommendation 1.2 – 1.4

To use as a cut in clear apply 1 coat over the base.

To use as a lock down clear apply 1-2 medium wet coats.

To use as a taping clear between multi colors apply 1-2 medium-wet coats.

Depending on grade of reducer used the flash times should be between 3-10 minutes between coats. This clear must be top coated within 24 hours.

Each coat MUST flash…DO NOT double coat this product!

Production Clear

2.1 VOC

Product Numbers:

2100-1 Production Clear (gallon)

2100-4 Production Clear (quart)

2101-4 Fast Activator (quart)

2102-6 Medium Activator (half pint)

2102-4 Medium Activator (quart)

2103-4 Slow Activator (quart)

2104-4 Very Slow Activator (quart)

Our 2.1 VOC Production Clear has excellent long-term UV holdout with high gloss and its new resin system requires only low temperature, low time baking cycles which can lower your energy costs. Is water-like in color so will not affect white blend jobs and may be used for spot repairs and all-overs alike. May be used over any basecoat after proper flash times. May be used over catalyzed enamels or polyurethane coatings after a minimum of 8 hours but preferably overnight.

Mixing: 4:1

Mix 4 parts Production Clear to 1 part activator.

900-4 Polar Accelerator may be added at 1-2oz per mixed quart of clear.

925-4 Urethane Retarder may be added at 1-3oz per mixed quart of clear. Up to 50 % can be added for the last coat or flow coat.

Spraying: Gun tip recommendation 1.3 – 1.5

The best way to spray this clear is to adjust your gun so you lay the clear the way you want it to look. **Spray one wet coat.** If you are doing an all-over and it's hot you may spray 2 wet coats back-to-back if you desire. If you are spraying only a couple panels, spray your first coat then wait 10-30 minutes before applying your second coat.

Flash Times:

Our Production Clear is 2 clears in 1 can. With the slow activator the first coat will flash in 5-10 minutes depending on air and substrate temperature. Medium activator makes this clear dry like an MS clear for those smaller jobs. Regardless of activator it maintains its 2.1 VOC properties and solids, so you have the best of both worlds. Fast activator is perfect below 70 degrees.

Baking: Low Temperature Baking Clear

No Purge! Bake for 10-15 minutes at 110-120 degrees. This obviously depends on air temperature and activator used. **Never bake this clear over 120 degrees!**

Repairing:

After 4 hours at 70 degrees or better you should be able to make repairs without any problems. If the clear was baked, repairs should be made 60 minutes after the vehicle has cooled to room temperature.

Buffing:

Always let it set overnight before buffing. Production Clear will buff best in the first 3 days but will still buff good for the next 7 days.

Spraying in Non-Baking Paint Booths:

The booth fan MUST be shut off within one minute after the overspray is gone!

DO NOT spray this clear until all precautions have been read!

1. Never add any fisheye eliminators to this clear.

2. Clear can be accelerated but **only** with **SPI 900-4**.

3. We do not recommend ceramic coatings over any SPI product due to the extensive range of available products and lack of long-term testing.

4. Bake at temperature and cycles **not higher** than 120 degrees for 10 minutes or 110 degrees for 15 minutes. **No purge time is needed** before bake cycles.

5. If allowing to air dry the **fan must be shut** off within one minute after the overspray has been evacuated from the last coat of clear.

6. The mixed **pot life** will be about 2-3 hours depending on the temperature in the shop.

7. **First coat must be sprayed** how you want the clear to look the next day therefore **never** spray a tack/dust/drop coat. The exception is over unstable metallics, then the first coat should be a drop coat/tack coat.

8. Reduce the clear however it works best for you but if you choose to add excess reducer to the mixed product it is very important there is **at least 2 mils of clear** left after buffing is complete (assuming buffing is needed) for maximum UV protection. Testing is recommended.

9. Use only a pure carnauba wax or a fresh paint safe hand glaze. Only after 90 days of sunlight can a traditional wax be used.

10. If more than 2 coats are to be applied, **wait 30 minutes** between every coat of clear.

11. Remove any internal gun strainers, filters, disposal cup screens.

Speed Clear

2.1 VOC

Product Numbers:

3100-1 Speed Clear (3/4 gallon)

3101-4 Fast Activator (quart)

3102-4 Medium Activator (quart)

3103-4 Slow Activator (quart)

SPI's Speed Clear is the newest addition to our clearcoat line. This clear is designed for refinishing five panels or less and is limited to two coats. If air dried, this clear can be buffed in 90 minutes which is perfect for any painter who wants to get work out same day.

Mixing: 3:1

Mix 3 parts Speed Clear to 1 part activator.

900-4 Polar Accelerator and 925-4 Urethane Retarder may be added but not recommended.

Small amounts of high quality and VOC appropriate urethane reducer may be used but is not recommended.

Pot Life of this product is 30 minutes at 75 degrees.

Speed Clear has excellent flexibility, so flex additives are never required.

Spraying: Gun tip recommendation 1.3 – 1.5

This clear is designed for refinishing five panels or less and is limited to two coats. The two coats of clear will provide enough mils for wet sanding and buffing (only if needed).

Spray one wet coat, while not letting it flash, apply a second wet coat then move on to your next panel.

After the second coat, turn the booth fan off after overspray has been evacuated.

Dry Times:

Speed Clear can be air dried or baked. Air dries as fast as 90 minutes

Baking:

No Purge! Bake for 10 minutes up to 140 degrees.

Repairing:

After 90 minutes of air drying you should be able to make minor repairs without any problems. Keep in mind the type of base you use plays a big part in the curing of the clear and to be safe you should wait at least 4 hours to repair.

Buffing:

Buffing can be done after cooling down if baked or as fast as 90 minutes if air dried.

Spraying in Non-Baking Paint Booths:

The booth fan MUST be shut off within one minute after the overspray is gone!

DO NOT spray this clear until all precautions have been read!

1. Never add any fisheye eliminators to this clear.

2. We do not recommend ceramic coatings over any SPI product due to the extensive range of available products and lack of long-term testing.

3. Bake at temperature and cycles **not higher** than 140 degrees for 10 minutes. **No purge time is needed** before bake cycles.

4. If allowing to air dry the **fan must be shut** off within one minute after the overspray has been evacuated from the last coat of clear.

5. The mixed **pot life** will be about 30 minutes depending on the temperature in the shop.

6. Use only a pure carnauba wax or a fresh paint safe hand glaze. Only after 90 days of sunlight can a traditional wax be used.

7. Remove any internal gun strainers, filters, disposal cup screens.

Universal Clear

Product Numbers:

4000-1 Universal Clear (gallon) 4000-4 Universal Clear (quart)

4001-4 Medium Activator (quart)

4002-4 Fast Activator (quart)

4003-4 Slow Activator (quart)

4004-4 Very Slow Activator (quart)

This clear may be used on any job whether all-over or spot repair. Universal clear has been used over the years on many Barrett Jackson and Pebble Beach cars as this clear was designed for restoration and street rod refinishing. Universal Clear is also user friendly and works very well in all types of production shops as this is truly one clear that will do it all. May be sprayed over any basecoat and over any activated single stage paint. For single stage paints let sit overnight before applying Universal Clear.

Mixing: 1:1

Mix 1 part Universal Clear to 1 part activator.

Order one quart of activator per quart of clear.

Activators may be mixed to create your own dry times.

900-4 Polar Accelerator may be added at 1-2oz per mixed quart of clear.

925-4 Urethane Retarder may be added at 1-3oz per mixed quart of clear. Up to 50 % can be added for the last coat or flow coat.

Spraying: Gun tip recommendation 1.3 – 1.5

Adjust the gun so you can lay the clear slick and you then have two choices:

Option 1: Spray the first coat wet then apply a second wet coat within 10-30 minutes for a two-coat production type job.

Option 2: For custom painting (3 coats or more) it is best to **wait exactly 30 minutes** between coats. (Refer to The Perfect Paint Job)

Flash Times:

The first coat of **Fast Activator** will flash in 2-5 minutes.

Depending on conditions the first coat of **Medium Activator** will flash in 3-8 minutes. The second coat will be a little slower.

The first coat of **Slow Activator** will flash in 5-10 minutes depending on temperature.

Activators may also be mixed to create your own cure times. This truly unique clear will fill 100 percent of a body shops needs year around without the need for a second clear.

Baking: Low temperature baking clear

No Purge! Bake for 10-15 minutes at 110-120 degrees. This obviously depends on air temperature and activator used. This clear is water spot free after one hour when air dried at 75 degrees.

Never bake this clear over 120 degrees!

Repairing:

After 90 minutes of air drying, you should be able to make minor repairs without any problems. Keep in mind the type of base you use plays a big part in the curing of the clear and to be safe you should wait at least 4 hours to repair.

Buffing:

Universal Clear buffs great. Always let it sit overnight before buffing but small spots like a door can be buffed in **2 hours at 75 degrees with normal activator if needed**. Adjust buffing times according to your air temperature, activator used, and color used.

Spraying in Non-Baking Paint Booths:

The booth fan MUST be shut off within one minute after the overspray is gone!

We designed Universal Clear this way and that is one of the reasons this clear works so well in shops that do not have perfect painting conditions.

DO NOT spray this clear until all precautions have been read!

1. Never add any fisheye eliminators to this clear.

2. Clear can be accelerated but **only** with **SPI 900-4**.

3. We do not recommend ceramic coatings over any SPI product due to the extensive range of available products and lack of long-term testing.

4. Bake at temperature and cycles **not higher** than 120 degrees for 10 minutes or 110 degrees for 15 minutes. **No purge time is needed** before bake cycles.

5. If allowing to air dry the **fan must be shut** off within one minute after the overspray has been evacuated from the last coat of clear.

6. The mixed **pot life** will be about 2-3 hours depending on the temperature in the shop.

7. **First coat must be sprayed** how you want the clear to look the next day therefore **never** spray a tack/dust/drop coat. The exception is over unstable metallics, then the first coat should be a drop coat/tack coat.

8. Reduce the clear however it works best for you but if you choose to add excess reducer to the mixed product it is very important there is **at least 2 mils of clear** left after buffing is complete (assuming buffing is needed) for maximum UV protection. Test is recommended.

9. Use only a pure carnauba wax or a fresh paint safe hand glaze. Only after 90 days of sunlight can a traditional wax be used.

10. If more than 2 coats are to be applied, **wait 30 minutes** between every coat of clear.

11. Remove any internal gun strainers, filters, disposal cup screens.

Universal Clear

2.1 VOC

Product Numbers:

4100-1 Universal Clear (gallon) 4100-4 Universal Clear (quart)

4101-4 Fast Activator (quart)

4102-4 Medium Activator (quart)

4103-4 Slow Activator (quart)

This clear may be used on any job whether all-over or spot repair. Universal Clear has been used over the years on many Barrett Jackson and Pebble Beach cars as this clear was designed for restoration and street rod refinishing. Universal Clear is also user friendly and works very well in all types of production shops as this is truly one clear that will do it all. May be sprayed over any basecoat and over any activated single stage paint. For single stage paints let sit overnight before applying Universal Clear.

Mixing: 1:1

Mix 1 part Universal Clear to 1 part activator.

Order one quart of activator per quart of clear.

Activators may be mixed to create your own dry times.

900-4 Polar Accelerator may be added at 1-2oz per mixed quart of clear.

930-4 Urethane Retarder may be added at 1-3oz per mixed quart of clear. Up to 50 % can be added for the last coat or flow coat.

Spraying: Gun tip recommendation 1.3 – 1.5

Adjust the gun so you can lay the clear slick and you then have two choices:

Option 1: Spray the first coat wet then apply a second wet coat within 10-30 minutes for a two-coat production type job.

Option 2: For custom painting (3 coats or more) it is best to **wait exactly 30 minutes** between coats. (Refer to The Perfect Paint Job)

Flash Times:

The first coat of **Fast Activator** will flash in 2-5 minutes.

Depending on conditions the first coat of **Medium Activator** will flash in 3-8 minutes. The second coat will be a little slower.

The first coat of **Slow Activator** will flash in 5-10 minutes depending on temperature.

Activators may also be mixed to create your own cure times. This truly unique clear will fill 100 percent of a body shops needs year around without the need for a second clear.

Baking: Low temperature baking clear

No Purge! Bake for 10-15 minutes at 110-120 degrees. This obviously depends on air temperature and activator used. This clear is water spot free after one hour when air dried at 75 degrees.

Never bake this clear over 120 degrees!

Repairing:

After 90 minutes of air drying you should be able to make minor repairs without any problems. Keep in mind the type of base you use plays a big part in the curing of the clear and to be safe you should wait at least 4 hours to repair.

Buffing:

Universal Clear buffs great. Always let it sit overnight before buffing but small spots like a door can be buffed in **2 hours at 75 degrees with normal activator if needed**. Adjust buffing times according to your air temperature, activator used, and color used.

Spraying in Non-Baking Paint Booths:

The booth fan MUST be shut off within one minute after the overspray is gone!

We designed Universal Clear this way and that is one of the reasons this clear works so well in shops that do not have perfect painting conditions.

DO NOT spray this clear until all precautions have been read!

1. Never add any fisheye eliminators to this clear.

2. Clear can be accelerated but **only** with **SPI 900-4**.

3. We do not recommend ceramic coatings over any SPI product due to the extensive range of available products and lack of long-term testing.

4. Bake at temperature and cycles **not higher** than 120 degrees for 10 minutes or 110 degrees for 15 minutes. **No purge time is needed** before bake cycles.

5. If allowing to air dry the **fan must be shut** off within one minute after the overspray has been evacuated from the last coat of clear.

6. The mixed **pot life** will be about 2-3 hours depending on the temperature in the shop.

7. **First coat must be sprayed** how you want the clear to look the next day therefore **never** spray a tack/dust/drop coat. The exception is over unstable metallics, then the first coat should be a drop coat/tack coat.

8. Reduce the clear however it works best for you but if you choose to add excess reducer to the mixed product it is very important there is **at least 2 mils of clear** left after buffing is complete(assuming buffing is needed) for maximum UV protection. Test is recommended.

9. Use only a pure carnauba wax or a fresh paint safe hand glaze. Only after 90 days of sunlight can a traditional wax be used.

10. If more than 2 coats are to be applied, **wait 30 minutes** between every coat of clear.

11. Remove any internal gun strainers, filters, disposal cup screens.

Euro Clear 2020

Product Numbers:

5000-1 Euro Clear (gallon)

5001-4 Fast Activator (quart)

5002-4 Medium Activator (quart)

5003-4 Slow Activator (quart)

This very high-grade clear can be made to do about anything the painter desires with a little creativity in choosing mixing ratios and proper grade reducers. With a little experimenting this clear can suit the needs of any collision shop doing anything from used car work to insurance work on a new Mercedes.

Mixing: 4:1:1 to 4:1:3

Mix 4 parts Euro Clear to 1 part activator to 1 part reducer up to 3 parts SPI Reducer.

Though the ratio in which urethane reducer is added to this clear, the painter has complete control to create their own personalized clear based on what you want the solid contents to be, how you want the clear to spray and the speed in which you want the clear to dry.

Painters doing low end or used car work have the option to take the clear used for everyday production and reduce it up to 4:1:3 to significantly cut costs for that job without using a low grade clear.

900-4 Polar Accelerator may be added at 1-2oz per mixed quart of clear.

925-4 Urethane Retarder may be added at 1-3oz per mixed quart of clear. Up to 50 % can be added for the last coat or flow coat.

Spraying: Gun tip recommendation 1.3 – 1.5

Use a gun with a 1.4 tip to spray the first wet coat, let it dry until you can lightly touch the clear then spray the second coat wet. Flash time is 10 minutes with 2 coats but if doing more than 2 coats allow 30 minutes flash time between coats.

Baking: Low temperature baking clear

No Purge! Bake for 10-15 minutes at 110-120 degrees. This obviously depends on air temperature and activator used. This clear is water spot free after one hour when air dried at 75 degrees.

Never bake this clear over 120 degrees!

Spraying in Non-Baking Paint Booths:

The booth fan MUST be shut off within one minute after the overspray is gone!

Repairing:

After one hour of air drying, you should be able to make minor repairs without any problems. Keep in mind the type of base you use plays a big part in the curing of the clear and to be safe you should wait at least 4 hours to repair.

Buffing:

Depending on the mix ratio and speed of reducer, buffing can be done in 2 hours to overnight. This clear should be buffed within 10 days when 70 degrees or higher for best results.

Reducing:

Most high-grade urethane reducers will work fine in this clear, but SPI Reducers are recommended. **We strongly advise you to avoid using low-grade reducers in this clear.**

DO NOT spray this clear until all precautions have been read!

1. Never add any fisheye eliminators to this clear.

2. Clear can be accelerated but **only** with **SPI 900-4**.

3. We do not recommend ceramic coatings over any SPI product due to the extensive range of available products and lack of long-term testing.

4. Bake at temperature and cycles **not higher** than 120 degrees for 10 minutes or 110 degrees for 15 minutes. **No purge time is needed** before bake cycles.

5. If allowing to air dry the **fan must be shut** off within one minute after the overspray has been evacuated from the last coat of clear.

6. The mixed **pot life** will be about 2-3 hours depending on the temperature in the shop.

7. **First coat must be sprayed** how you want the clear to look the next day therefore **never** spray a tack/dust/drop coat. The exception is over unstable metallics, then the first coat should be a drop coat/tack coat.

8. Reduce the clear however it works best for you but if you choose to add excess reducer to the mixed product it is very important there is **at least 2 mils of clear** left after buffing is complete (assuming buffing is needed) for maximum UV protection. Test is recommended.

9. Use only a pure carnauba wax or a fresh paint safe hand glaze. Only after 90 days of sunlight can a traditional wax be used.

10. If more than 2 coats are to be applied, **wait 30 minutes** between every coat of clear.

11. Remove any internal gun strainers, filters, disposal cup screens.

Euro Clear 2020

2.1 VOC

Product Numbers:

5100-1 2.1 VOC Euro Clear (gallon)

5101-4 2.1 VOC Fast Activator (quart)

5102-4 2.1 VOC Medium Activator (quart)

5103-4 2.1 VOC Slow Activator (quart)

This high-grade clear can do about anything the painter desires by choosing the proper activator. This clear can suit the needs of any collision shop doing anything from used car work to insurance work on a new Mercedes.

Mixing: 4:1

Mix 4 parts Euro Clear to 1 part activator.

900-4 Polar Accelerator may be added at 1-2oz per mixed quart of clear.

930-4 Urethane Retarder may be added at 1-3oz per mixed quart of clear. Up to 50 % can be added for the last coat or flow coat.

Spraying: Gun tip recommendation 1.3 – 1.5

Use a gun with a 1.4 tip to spray the first wet coat, let it dry until you can lightly touch the clear then spray the second coat wet. Flash time is 10 minutes with 2 coats but if doing more than 2 coats allow 30 minutes flash time between coats.

Baking: Low temperature baking clear

No Purge! Bake for 10-15 minutes at 110-120 degrees. This obviously depends on air temperature and activator used. This clear is water spot free after one hour when air dried at 75 degrees.

Spraying in Non-Baking Paint Booths:

The booth fan MUST be shut off within one minute after the overspray is gone!

Never bake this clear over 120 degrees!

Repairing:

After 90 minutes of air drying you should be able to make minor repairs without any problems. Keep in mind the type of base you use plays a big part in the curing of the clear and to be safe you should wait at least 4 hours to repair.

Buffing:

Depending on the activator used buffing can be done in 2 hours to overnight. This clear should be buffed within 10 days when the temperature is 70 degrees or greater for best results.

Reducing:

Most high-grade urethane reducers will work fine in this clear, but SPI Reducers are recommended. Use low VOC reducers in VOC compliant areas. **We strongly advise you to avoid using low-grade reducers in this clear.**

DO NOT spray this clear until all precautions have been read!

1. Never add any fisheye eliminators to this clear.

2. Clear can be accelerated but **only** with **SPI 900-4**.

3. We do not recommend ceramic coatings over any SPI product due to the extensive range of available products and lack of long-term testing.

4. Bake at temperature and cycles **not higher** than 120 degrees for 10 minutes or 110 degrees for 15 minutes. **No purge time is needed** before bake cycles.

5. If allowing to air dry the **fan must be shut** off within one minute after the overspray has been evacuated from the last coat of clear.

6. The mixed **pot life** will be about 2-3 hours depending on the temperature in the shop.

7. **First coat must be sprayed** how you want the clear to look the next day therefore **never** spray a tack/dust/drop coat. The exception is over unstable metallics, then the first coat should be a drop coat/tack coat.

8. Reduce the clear however it works best for you but if you choose to add excess reducer to the mixed product it is very important there is **at least 2 mils of clear** left after buffing is complete (assuming buffing is needed) for maximum UV protection. Test is recommended.

9. Use only a pure carnauba wax or a fresh paint safe hand glaze. Only after 90 days of sunlight can a traditional wax be used.

10. If more than 2 coats are to be applied, **wait 30 minutes** between every coat of clear.

11. Remove any internal gun strainers, filters, disposal cup screens.

Activator Shelf Life

All times are based on *Activators* stored inside at a stable temperature of 55 degrees or higher.

Epoxy Primer Activator:

Good 3 years unopened

Good up 1 year after opening

2K Primer/Sealer Activators:

Good 2 years unopened

Good 30 days from opening

Clearcoat Activators:

Good 2 years unopened

Good for 6 months after opening

Epoxy Primer Induction:

Not required over bare metal, aluminum, or fiberglass but

30-minute induction is ideal

If adding urethane reducer, induce at least 15 minutes

Must induce 4 hours to get the most UV protection out of it if using it

on the exterior of a vehicle.

General Paint Gun Adjusting Guidelines

Do not regulate / restrict air pressure between the source and the gun regulator.

Remove any internal cup filters or strainers.

Fan control: 90% open

Fluid control: Back out 2 ¾ turns from the closed position.

1.4-1.5 fluid cap guns like 26-32 psi at the gun regulator (when the trigger is pulled)

1.2-1.3 fluid cap guns like 24-28 psi at the gun regulator (when the trigger is pulled)

Make sure the air compressor psi is as high as it will go (120 psi or better). If air psi is restricted (turned down) at the compressor, at an air dryer or a regulator on the wall, it will kill the SCFM which will cause adverse spraying issues. Modern day paint guns are SCFM pigs. The only place air psi is restricted is at the regulator on the gun.

Most modern paint guns are used 5-6" away from the panel. Further away causes dry spray among other issues.

Once the above basic adjustments have been made, place a piece of masking paper on the wall. Hold the gun the 6" from the paper and do a quick squeeze of the trigger then observe the pattern. The pattern should be nice and even in the center of the pattern.

If the pattern shows dry spray in the center, turn the fan in (closing some) starting with 5% up to 10%.

Once again, these are general guidelines, and fine tuning may be needed.

Iwata LPH400 Series Color-Coded Caps:

Silver (LV) – Clears
Orange (LVX) – Basecoats
Purple (LVB) – Difficult metallic and pearl basecoats.

How to Fine Tune Your Paint Gun

This may sound trivial to an experienced painter, but the fact is very few painters know how to adjust their paint gun. This one item separates a sprayer from a painter more than anything else. The fact is a painter that knows how to fine tune his paint gun will turn a lot more hours and have a lot less problems because he is controlling the paint and is not letting the paint control him. Therefore 80-90% of the painters today hate to spray High Solids clears. They vision runs or orange peel and if you do not adjust the gun properly this is what you will get make no doubt about it.

First, the number one question I get is what tip should I use? My personal feeling is for basecoat a 1.3 or 1.4 and for clear 1.4. The exception on the 1.4 for spraying clear would be certain HVLP guns where a 1.5 is made for spraying clear. Guns like the SATA 5000 are another exception.

What happens with an improperly adjusted paint gun?

If you are applying basecoat chances are you're applying it way too heavy and your blends are showing, your metallic are not lying down or standing out like they should so your color matches are a problem, and the base is drying slower between coats than it should. The number one clue the basecoat is going on too heavy is if you are having a dieback problem with the clear after setting overnight (trapped solvents). With a High Solids clear you try to spray it wet enough that the orange peel will flow out but hope that it does not flow so much that it runs on you. The next day you tend to have a clear that looks cloudy or milky because of the trapped solvents and it requires a lot of wet sanding. The benefits of adjusting the paint gun properly will be faster application of paint and you will know what the final job will look like when you spray it and not have to guess.

How do I properly adjust my gun?

Place a piece of masking paper on the wall, then set the fan how you like it. Adjust the air pressure to the rate that you plan to spray with. Screw in the fluid adjustment all the way. Hold the gun from the paper the distance that you would normally spray (usually 5-6 inches) and give the trigger a quick squeeze and release. If anything comes out of the gun it should be very little and dry. Turn the fluid out one full turn and repeat this procedure half a turn at a time until you are getting an even pattern and the paint is even in build. If it is metallic the metallic should spray even as well. At this point go to a rocker or bottom of a fender on the car and make a 12-inch pass. You will most likely have to back the fluid out one-half to one full turn to spray at the speed you want then fine tune your air pressure.

Now the gun is very close in adjustment, you should be able to lay the clear orange peel free without running it, and metallic should spray even and wet without much effort. Keep in mind this is not your last adjustment; every base color will spray a little different and may require a half a turn in or out for the new color. If you're going from a high solids clear for an all-over to a spot repair clear you will need to make a minor adjustment again.

Runs and Orange Peel

A simple formula to remember is orange peel is fluid adjustment and run control is an air pressure adjustment.

If you are getting a few runs, verify that you are not regulating air pressure at the wall or compressor, only at the gun. Then try upping the air pressure in increments of 3-5 pounds more.

For orange peel try turning your fluid in clockwise in quarter to half turn increments.

One final note spend the money on a good set of paint guns! This is your career, and the paint gun makes or breaks you as far as labor hours turned. Spend the $500-1200 for a good base gun and again for a good clear gun, the payback will be faster than you think. You will always get what you pay for with a paint gun!

The Perfect Paint Job

Our goal is to accomplish a paint job that has a solid foundation, maximum gloss and will last for many years. This type of painting is **not practical for the everyday production body shop,** but it will serve you when you do your next restoration or a street rod job. We are going with the assumption that the metal or fiberglass has been stripped of all paint.

All bare metals and aluminum should have 80 grit DA scratches.

Spraying primers:

Bare metal is always best cleaned with 700-1 Waterborne Wax and Grease Remover and then let it sit 60 minutes before applying the epoxy!

After first reading our Epoxy Tech Sheet mix enough SPI Epoxy Primer to spray 2-3 wet coats over the entire car. Spray one wet coat and let flash for about 30 minutes then apply a second wet coat (3rd coat is optional). Let the epoxy sit overnight then apply body filler or glazing putty over the epoxy. **Let the epoxy sit 48 hours before applying polyester primer.**

It is **not necessary to sand the epoxy before applying the fillers** (within the first 7 days of spraying epoxy) as they will bite into the epoxy and feather great. When you have finished sanding all the bodywork you are likely to have some bare metal spots from sanding. Spray one wet coat of epoxy over all filler spots and over any bare metal spots. Now let the vehicle set overnight.

The next day you can start spraying the 2K primer over the epoxy. Once again, it is **not necessary to scuff or sand the epoxy before applying primer**. The most important thing to remember at this point is spray one wet coat of 2K primer and let it sit for 5 minutes before applying the second coat. Follow this procedure between all coats of 2K Primer. This step when abused messes up more paint finishes than anything else!

When all the primer blocking, and any necessary primer repairs are finished it is always best to use the epoxy as a sealer. Mix up enough epoxy to go around the car with one wet coat and add a double shot glass of SPI 885 Urethane Reducer per quart. Let the epoxy sit for 30 minutes. Stir one more time and strain. Spray one full wet coat of epoxy over the entire car. The epoxy should sit for 6 hours before spraying basecoat, the best option is let it sit overnight.

Spraying the basecoat:

Next to rushing the 2K primer, rushing the basecoat is the second cause for the final gloss and depth of a paint job to look bad. It's very important to use the slowest urethane reducer in your basecoat that you can get away with regardless of outside temperature. Even if you spray at 70-75 degrees, use slow reducer in the base. Just allow enough extra time for the basecoat to flash off and dry. The difference between a slow grade and medium grade reducer will show up in the final gloss.

Spray the first coat and let it totally dry before spraying the second coat. It is best to wait 30-45 minutes between coats of base. **Always wait 45 minutes between base colors that contain a lot of black pigment.**

If your basecoat is not perfect:

After two coats of base the vehicle should sit overnight and then do any minor wet sanding with 1500 grit sandpaper to remove any orange peel or trash. Apply the next two coats with 45 minutes of flash time in between coats. Some colors will require additional coats. If this is the case always wait 45 minutes between coats.

Let the basecoat sit overnight.

A word of caution: There are 2-4 basecoat types that cannot be sanded, or you will lose adhesion so avoid those basecoats. Check with your basecoat manufacturer.

Clear Option 1: Applying the clear in a single day

The following day, tack off the vehicle, then apply a wet coat of SPI Universal Clear and let the first coat of clear sit 30 minutes.

Spray the second wet coat of clear and let it sit for 30 minutes. Let the clear sit for 30 minutes before applying each additional coat as well.

DO NOT BAKE! The booth heat can be set at 80°-90° if you wish.

Normally 4-5 coats of clear are applied during this process.

Then proceed with normal wet sanding and buffing when you are ready.

Clear Option 2: Layering multiple coats of clear over multiple days:

Spray 3-4 coats of clear waiting exactly 30 minutes between coats. Do not bake! You can set the booth at 80°-90° and leave it on if you wish. The next day, if possible, let the car sit in the daylight/sun all day regardless of air temperature as all we want is UV light.

The following day or anytime after, wet sand the car with 800 grit and put it back in the sun for at least half a day; a full day would be better. Clean the car with 700 waterborne wax and grease remover. Do it carefully as anything left behind will destroy the paint job. Let it sit for 60 minutes then apply 3-4 more coats of clear waiting 30 minutes in between coats.

DO NOT BAKE! The booth heat can be set at 80°-90° if you wish.

Anytime after the day of last spraying the car give the car one full day in the sun. Wet sand the next day with the grits of your choice, pull the car out for at least half a day in sun then buff it at your leisure.

It's advisable for black, dark blue and dark green paint jobs to have an extra day in the sun with any of the above steps, as blacks dry/release solvents slower and this step will prevent the black from showing fine scratches and it will help you get rid of swirl marks when buffing.

Wait a long time before waxing:

NEVER wax one of these multiple coat jobs for at least six months or you will run the risk of delamination down the road. You can use detail spray to make the bugs wash off easier and to make drying easier as these products are designed to breathe. A breathable pure carnauba wax is also fine.

Notes

- Remove any internal strainers, cup screens or cup filters before spraying primers, epoxy, metallic bases or clears

- Ceramic coatings are used at your own risk; SPI does not recommend it

- Only use pure carnauba wax or a fresh paint safe hand glaze prior to 90 days of sunlight curing

- Only use medium or slow reducer in basecoat, slow if preferred for black and darker colors

- Metal and product temps should be at least 65 degrees prior to application and for 24 hours after applying products

- Metal temps can be up to 5 degrees lower than ambient temperature

- If you decide to wet the floors of your booth, allow plenty of time for the water to evaporate before spraying. Excess moisture can lead to solvent pop