

Table of Contents

ArmorCoat Description	3
Installation Instructions	4
Surface Preparation	4
Spraying ArmorCoat	5
Mixing and Reducing	5
Directions for Use	6
Booth Temperature and Dry Times	7
Film Build	8
Buffing, Polishing	8
Spraying Tips	9
ArmorCoat Do's and Don'ts	
Common Repairs	11
Blushing, Frosting, Hazing	11
Sags, Runs	12
Rock Chips	13
Tears, Peeling	14
Solvent Popping, Die Back	15
Jagged Tape Line	16
Collision Repair	17

ArmorCoat Description

ArmorCoat is a clear aftermarket paint protection coating formulated for high build application using conventional HVLP spray equipment in a controlled shop environment. When sprayed and cured over existing OEM, repair or custom automotive paint finishes, the highly flexible and impenetrable properties of ArmorCoat will reduce and prevent chipping, scratching, and damage caused by stones, insects and weathering.

ArmorCoat is virtually invisible to the eye and the 6-10 mil application provides significantly higher film thickness and far greater resilience than traditional OEM and auto body repair clears. Even larger stones, which can typically shatter an OEM finish leaving chips or craters right down to the metal, cause no damage to vehicles finished with ArmorCoat.

ArmorCoat is designed for cars, trucks, motor homes, over the road trucks, motorcycles and any painted surface that needs protection from the typical damage that occurs during daily driving. After spray application, the product is allowed to air dry, and then returned to the customer.

Tech Support is available by contacting us by phone or email.



info@armorcoatusa.com



Technical Support
1-800-433-6903

Skype ID:
ArmorCoat

Installation Instructions

Surface Preparation

Wash vehicle and dry thoroughly. Using an automotive grade grease and wax remover, clean two times all surfaces that will be covered with ArmorCoat. Never use products containing alcohols.

If partially coating a panel like a hood or fender caps, apply a fine line tape line to establish where the ArmorCoat line will stop. Contour the tape line with the lines and angles of the panel.



Be creative in the way that you lay out the fine line tape on the hood. Follow the contours of the hood edge or bumper while also considering the body lines in the hood. If you are servicing a dealership and are often coating the same

make and model, consider making a guide or template in order to maintain consistency.



Scuff the area that will be coated using a grey scuff pad or fine sandpaper (1000 grit). Clean and tack surface so it is free of all residual particle matter.

The vehicle must be properly masked to prevent overspray. Areas immediately adjacent to sections being coated must be protected using a **double layer** of quality masking paper or plastic. If a partial panel is being coated, back mask from the fine line about a quarter inch, then overlap $\frac{3}{4}$ inch tape into masking and fine line. At the end of the fine line on the panel, fold the $\frac{3}{4}$ inch masking tape over to create a tab that you can pull once you have applied the last coat. You will need to remove this tape **immediately** after spraying final coat.

Note

As with all clears, applying ArmorCoat creates a substantial amount of overspray, so properly protecting the vehicle cannot be overstated. If overspray settles on a panel and needs to be cleaned off, apply thinner to a clean shop towel and wipe until all of the

overspray is gone. If overspray has fully cured, you may need to cut and buff the panel to remove it.

ArmorCoat can be installed over a freshly applied after market clear. We recommend that you bake and scuff the clear and allow over night for the solvent to purge before applying ArmorCoat. You may also consider scuffing and waiting 24 hours to allow the solvents in the clear coat to purge before spraying ArmorCoat.

▶ ArmorCoat can also be sprayed directly over the base coat. Allow the manufacturer's recommendations for flash times before applying ArmorCoat.

▶ You can also spray base coat over cured ArmorCoat. You may also need to blend ArmorCoat when repairing collision damage. A blending solvent can be used to burn in ArmorCoat on larger panel repairs.

*See the Repair Video V-911R on the website to watch this process.

Note

Pre-existing rock chips and other blemishes in the paint should be repaired before installing ArmorCoat. Applying ArmorCoat over a damaged surface could magnify the chips and create an undesired effect.

Spraying ArmorCoat

Mixing and Reducing

Shake both cans by hand for 15-30 seconds before mixing. Mix Part A (#911628) and Part B (#911603) in equal amounts to create one spray-able pint of product. Pot life at 70 degrees and 50 % humidity is about 45 minutes. High humidity and high temperature can reduce the pot life. If you are spraying in these conditions mix smaller amounts to be sprayed and consider using a slow reducer.



Reduction by 5-7% is recommended with a temperature appropriate urethane clear coat reducer. Over reduction increases the chance of sagging or a run. Over reducing can also thin the product too much and make it difficult to get adequate film build.



CAUTION: ArmorCoat Parts A & B should mix up clear and not clump when stirred together. If ArmorCoat is not uniform in consistency, then it is strongly recommended not to spray it out. The product may have been activated and is not suitable for use.

Note

It is important to spray test panels in varying temperature and humidity conditions to properly choose reduction and flash times. Adjust air pressure and application technique to ensure a glossy and flat installation of ArmorCoat.

► It is not recommended that ArmorCoat be tinted. **FE912 Fisheye reducer** may be used at ½ oz per RTS quart.

Directions for Use

After the vehicle has been prepped, mix the ArmorCoat according to instructions and filter the mixture into your gun. Then tack the surface and spray a light tack coat. This coat could be considered a “mist” coat.

Spray gun tip: HVLV: 1.3-1.5 mm or equivalent
Conventional: 1.5-2.0 mm or equivalent

A 1.4mm tip is the most commonly used gun tip. Spray out test panels to establish what size fluid tip will work best for your application technique.

Air Pressure should be adjusted to approximately 5-10 lbs higher than your typical setting for clear coats in order to ensure proper atomization.



Wait approximately 3-4 minutes “**Flash Time**” before spraying another coat. Check the masking tape adjacent to the coated panel for tack. ArmorCoat should be

very tacky and create spider web type stringing from your glove as you pull your finger away from the surface. Following these guidelines is very important to allow solvents to flash off and avoid the product flattening or curing dull.

▶ Do not use these Flash Times recommendations as hard rules- you need to dial in spraying times for your own environment and conditions. Flash Times will vary slightly from season to season and with changes in temperature, humidity, and atmospheric pressure.

▶ Remember to remove fine tape **immediately** after the final coat while the product is still wet. This will create a soft edge. Do not remove the masking papers for at least 30 minutes.



CAUTION: Heavy or “double wet” coats will likely result in a blushing or frosting in the finish of cured ArmorCoat. Film build should be accomplished by applying 5-7 medium wet coats.

Booth Temperature and Dry Times

The booth temperature will depend on the painters’ preference. 60–70 degrees is ideal. However, 60-85 degrees is within the recommended temperature range. Higher booth temperatures are possible, but significantly increase the difficulty of spraying and should only be tried by experienced ArmorCoat users.

Ideally, cooler temperatures and lower humidity are better because such conditions slow the drying process and prevent ArmorCoat from setting up too quickly.

The vehicle should stay dust free in the paint booth for 20-45 minutes. It will be hand slick in 20 minutes and tack free in about 30 minutes.



Do not force cure: Force drying or baking is not recommended. Since film builds are significantly higher than traditional refinish clears, ArmorCoat may have a tendency to develop solvent pop or blush if not given adequate time to cure. The surface cure of ArmorCoat is too fast for heat assisted curing methods.

Note

You also want to make sure a down draft ventilation system in the paint booth does not blow too hard on one spot of the vehicle, which may dry ArmorCoat unevenly. Make sure air circulates to give optimal ventilation.

Film Build

Film build wet will be 10 to 16 mils thick. Dry film build should be a minimum of 6 mils thick, 6-8 mils is ideal. You can use an electronic dry thickness gauge to measure thickness on a metal panel. The mil gauge will be not work on fiberglass or plastic body panels.

► Do not be alarmed if the first tack coat is not level. ArmorCoat is self-leveling and will smooth out with additional coats. Do not rush to double wet the panel and “force it flat” by putting on another coat. That will only make the coat too heavy and possibly cause many problems like a sag, run, frosting, or solvent pop.

Overlap from one section of panel to the other is 50%.

Note

Remember to clean your spray gun well and test spray a pattern to make sure the pattern is long and uniform without a heavy middle.

Buffing, Sanding, Polishing



There is no recommended system for cutting and polishing ArmorCoat. Due to the rubberized properties of the coating, it is difficult to grind on the surface without dulling the shine.

However, to bring up the gloss you can try this method. Start with a clean surface. With a power polisher running at around 1400 rpm and a coarse foam pad, apply

medium pressure. Keep the polisher moving- do not overheat the material. Start with an Extra Cut compound to bring the haze out. Then switch to a soft foam pad and go to a swirl mark remover compound, same speed and light pressure. That eliminates the polishing swirl marks and brings out a shine.

Spraying Tips

ArmorCoat Do's & Don'ts

DO: Conduct your own testing on test panels

We highly recommend investing some time and money in purchasing a couple ArmorCoat kits and conducting your own testing on scrape panels. Vary the percent of reduction, pressure, and booth temperature so you can determine what will work best for you.

DO: Properly prepare the vehicle for spraying

This is very important for avoiding peeling. After you've properly prepared the vehicle for spraying, mix the two-part product using a one-to-one ratio. Pot life for the mixed product is 45 minutes to 1 hour, depending on shop temperature. Armor Coat has been developed as a spray-ready product. However, reduction by five to ten percent with an automotive grade clear coat reducer is acceptable as well. You want to avoid using all lacquer thinners and alcohols.

DO: Start with a light tack coat

Starting with a light tack coat is recommended. Let that first coat flash off a good three minutes. Flash times for the rest of the coats are best judged by touching the masking tape near the application area and feeling for the last coat to begin tacking up. You want the tack to be like fly paper and be just starting to string. Waiting too long or not long enough between coats could result in a dull finish so we recommend that you spray test panels to properly assess the flash times needed for your booth environment. Atomization is key with this high build coating so make sure to adjust your air pressure up from the normal spray setting . Total build thickness when dry should be 6 to 8 mils.

DO: Pull the fine-line tape ASAP

The fine-line tape must be removed immediately after the final coat, providing a soft transitional edge between the painted surface and ArmorCoat. Waiting longer to pull fine line tape could result in a jagged or hard edge.

If you get a harder edge than you would like, you can wet sand the edge and move the tape line back slightly and re-shoot a light coat of ArmorCoat along the line.

DO: Allow to dry in paint booth

Allow air to circulate but avoid direct air flow directly on one part, like the hood, as it may dry faster than the rest of the vehicle.

DON'T: Tape across the hood

Place tape line to contour to hood lines, roughly 6-12 inches up hood.

DON'T: Mix up too much at once

In high humidity the pot life of Part B is reduced dramatically. Only mix up enough product to spray out in 20 minutes.

DON'T: Attempt to spray just 3 coats

ArmorCoat is a film build. Spray a light tack coat first and then several additional medium coats. Spraying heavy coats will increase your chances of getting runs, sags, frosting, solvent popping and many other problems.

Common Repairs

There are several common mistakes with ArmorCoat. It is important to remember that each of these mistakes is repairable. If you have just finished spraying ArmorCoat, and there is a problem that needs to be repaired, you can bake the ArmorCoat to cure it and force the surface to dry faster, so it can be fixed sooner.

Blushing and Frosting

ArmorCoat Blushing Repair Procedures

Blushing, frosting, hazing, or “milking-out” are common terms to describe a change of color in the ArmorCoat, from clear to cloudy, or white in contrast to the paint.

Prevention: It is important to check the tape and make sure that when you put your finger into the ArmorCoat and pull up, it creates “spider webs” and not just a finger print. Make sure your gun sprays an even pattern.

Repair Procedure:

- 1) Allow to air dry or bake until completely dry.
- 2) Clean and degrease the area thoroughly
- 3) Wet sand/scuff area
- 4) Dust in base coat color
- 5) Reapply a light coat of ArmorCoat over base coat.

► You can apply ArmorCoat over wet base coat- wait 10-15 minutes – check manufacturer’s recommendations.

*See Repair Videos V-911B available on ArmorCoat website.

Sags, Runs

ArmorCoat Sag, Run Repair Procedures

Runs and sags are most often caused by spraying too heavy or by over-reducing.

Prevention: Do not over reduce. Reduction by more than 10% can thin ArmorCoat to the point of making it susceptible to runs and sags.

Repair Procedure:

If this happens while in the paint booth- tape out and hit with a new coat. Adhere to flash times so you do not risk too much film build and possible solvent pop.

OR

- 1) Allow to completely air dry.
- 2) Clean and degrease the area thoroughly
- 3) Razor area
- 4) Wet sand/scuff area
- 5) Reapply ArmorCoat to recommended dry mil thickness over entire bumper or burn in specific area.

*See Repair Video V-911s available on ArmorCoat website.

Rock Chips

ArmorCoat Chip Repair Procedures

Although ArmorCoat provides excellent rock chip protection, chips can occasionally occur. Usually the chip is caused by a rock that hits hard enough to damage the metal and will most likely require application of base coat. If you are coating a vehicle that already has rock chips, it is strongly suggested to fix the chips in the paint before applying ArmorCoat.

Repair Procedure:

- 1) Allow to air dry or bake until completely dry.
- 2) Clean and degrease the area thoroughly
- 3) Wet sand/scuff area
- 4) Dust in or brush touch base color to match vehicle if chip damaged paint
- 5) Reapply ArmorCoat to recommended dry mil thickness over entire area or burn in specific area.

*See Repair Video V-911 available on ArmorCoat website.

Tears, Peeling

ArmorCoat Tears and Peeling Repair Procedures



A tear in the ArmorCoat coating is almost always due to insufficient mil coverage. ArmorCoat needs to be at least 6 mils dry thickness.

Peeling is nearly always a result of not adequately cleaning and degreasing the area before spraying with ArmorCoat. The repair procedure would be the same as for a tear

Prevention: Make sure ArmorCoat is at least 6 mils thick. You can measure the thickness with an electronic mil gauge. Make sure the area is cleaned and scuffed to the edge to prevent peeling.

Repair Procedure:

- 1) Clean and degrease the area thoroughly.
- 2) Sand edge of tear and feather-out. Be very careful - it will not feather completely out and the tear may grow in size.
- 2) Fill in tear with a scratch puddy (body filler)
- 3) Use a primer sealer over the body filler per manufacturer's recommendations.
- 4) Lightly scuff primed area.
- 5) Dust in base color to match vehicle if necessary.
- 6) Reapply ArmorCoat to recommended dry mil thickness over entire area or burn in specific area.

► If ArmorCoat is not thick enough on entire vehicle then apply enough ArmorCoat to bring up to 6 mil minimum thickness.

*See Repair Video V-911 available on ArmorCoat website.

Solvent Popping

ArmorCoat Solvent Pop, Die Back Repair Procedures

Solvent pop, or pin holes in the surface of ArmorCoat are usually caused by applying coats too thick and/or not allowing adequate time for solvents to flash off between coats. A dull or matted finish can be easily repaired.

Prevention: It is important to check the tape and make sure that when you put your finger in the ArmorCoat overspray and pull up, it creates “spider webs” and not just a finger print. Make sure your gun sprays an even pattern.

Repair Procedure:

If ArmorCoat starts to lose gloss while it is still wet in the paint booth, wait 20-25 minutes and then hit it with one light coat to bring up gloss.

If the dry finish is dulled or solvent popped:

- 1) Allow to dry completely for at least 3 hours
- 2) Clean and degrease the area thoroughly.
- 3) Lightly wet sand/scuff the area.
- 4) Reapply ArmorCoat to recommended dry mil thickness over entire bumper or burn in specific area.

▶ ArmorCoat will fill in the solvent popping pin holes and should restore gloss to area.

▶ You should not need to recolor the area, but if this repair does not work than refer to Repair for Blushing/Frosting.

*See Repair Video V-911 available on ArmorCoat website

Jagged Tape Line

ArmorCoat Repair of Tape Line Procedures

An uneven tape line, or a tag in the tape line is always caused by not pulling the blue fine line tape AS SOON AS you finish painting the last coat of ArmorCoat.

Prevention: Use a high quality fine line tape and make a loop to make pulling the line as quick and easy as possible.

Repair Procedure:

- 1) Move the blue tape line back 1/16" or 1/32" across the whole hood or section to be sprayed OR tape along the other side of line.
- 2) Lightly wet sand the edge and feather.
- 3) Shoot one light- medium wet coat over the area and pull the "fine line" ASAP.
- 4) You may use a burn in solvent in a separate gun at this point to help melt the lines together, although this is not mandatory.

*See Repair Video V-911 available on ArmorCoat website.

Collision Damage

ArmorCoat Collision Repair Procedures

ArmorCoat is compatible with most base coat and clear coat refinish products, although we recommend testing over base systems.

Repair Procedure:

- 1) Feather sand ArmorCoat flush with damaged area.
- 2) Execute repairs as normal with body filler.
- 3) Prime and seal area.
- 4) Apply base coat and refinish clear. Bake or allow to dry overnight.
- 5) Lightly scuff area
- 6) Reapply ArmorCoat to recommended dry film thickness.

Opposite End of Panel:

- 1) Sand ArmorCoat flush with surrounding panel area, taking care not to sand through base coat.
- 2) Proceed with repair; blend panel and clear coat the entire area over remaining ArmorCoat.
- 3) Allow to dry several hours or overnight.
- 4) Scuff clear coat and wait X to allow solvents to pop.
- 5) Reapply ArmorCoat to recommended dry film thickness.

*See Repair Video available on ArmorCoat website.