



ZyCor® Primer and **ZyCor®** Color Coats Application Instructions

***** NOTE: IF APPLYING ZYCOR COLOR COAT YOU MUST FIRST APPLY ZYCOR PRIMER.**

When using ZYCOR professional grade coatings, always use safe industry practices.

- All personnel handling and/or using ZYCOR should be trained on all industry safety practices, laws and other regulations. Including but not limited to:
 - Protective clothing, safety glasses, protective breathing equipment,
 - Handle components with gloves to avoid skin oils from contaminating clean parts.
 - Understanding the contents of the Safety Data Sheet (SDS) for ZYCOR.
 - Spray booths which comply with all local and federal laws, regulations and safety requirements.

Surface Preparation (REQUIRED)

- Throughout the application process, make sure the substrate surface is clean and free of all contaminants including but not limited to oil, grease, dirt, fingerprints, drawing compounds, weld flux, surface oils or treatments and other sources of contamination which can cause coating adhesion failures as well as cosmetic blemishes. Remove weld spatter and smooth out any jagged or sharp (burr) edges. Remove all with surface contaminants with Acetone or Xylene ONLY. Allow the surface to dry and place component in oven for 20 minutes at 250 F to allow solvent to completely flash off.
 - We recommend following the metal blast cleaning standard used for near-white metal blast cleaning by the Society for Protective Coatings (SSPC) and NACE International Standard. Near-white metal blast cleaning is to be used to clean unpainted or painted steel surfaces prior to applying a new protective coating. The SSPC-SP 10/NACE No. 2 standard removes all surface contaminants dust, coating, and mill scale and provides a rough etched surface for the ZYCOR to grab onto.
 - If blasting is not available prep the surface by power tool cleaning per Society of Protect Coatings (SSPC-SP 11) using Heavy Duty Roto Peen type C lap wheel cleaning system mounted on an air driven motor. This method will provide a surface consistent with commercial blast cleaning.

Blast profile



Aluminum (untreated), Steel, or Cast Iron -

1. Proper preparation provides better surface adhesion. Blast is RECOMMENDED first step in all applications
2. Remove all rust, mil scale, and any other forms of oxidation products.
3. We recommend placing cast components in oven for 30-45 minutes at 300°F to allow any oils or contaminants in pores to flash or burn off prior to surface blasting
4. We suggest media blasting the metal surface – following the “better the surface prep/the better the coating adhesion” principle.
 - a. Blast profile of .0025 to a maximum of .005 (.5 mil)
 - b. Suggested blasting media. Clean 100 to 120 grit aluminum oxide, garnet sand or other blast media designed to etch metal surface at 90-100 psi.

ZyCoat, LLC

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ZyCor Application Instructions: #16673



5. Ensure that the substrate is free of all media, dust and any contaminants through the use of clean compressed air.

NOTE: Metal fabricated tubing/exhaust systems have varying levels of quality, porosity, welding, fabrication and other variables can influence the cosmetics, adhesion, and performance of the coating. Likewise, the design of the final fabricated parts can influence the outcome of the coating application as well. Ex. If there are components bolted on, areas of the metal fabrication creates areas where the cleaning/blasting cannot reach; this can hold oils and other impurities which are not released until the high temperatures of cure or operation are reached.



Application

ZyCor Aerosol

1. Temperature of the coating should be between 60° F to 80°F prior to applying.
2. Shake the aerosol well for one minute after you hear the ball moving in the can.
3. Hold the aerosol 6-8" from the application surface moving in consistent pattern allowing no more than 1.5 mil -2.0 mi thickness of the coating on the substrate. Thicker is NOT better. Thicker application may cause blistering when substrate surface reaches elevated temperatures.
4. ZYCOR will dry to the touch in 30-60 minutes. Allow 8 hours of air-dry time between coats or before applying the ZYCOR Color Coats.
5. **IMPORTANT MUST READ & FOLLOW CAREFULLY: IF APPLYING ZYCOR COLOR COAT OVER THE ZYCOR PRIMER - DO NOT OVEN CURE THE PRIMER COATED COMPONENT PRIOR TO APPLYING COLOR COAT. OVEN CURE THE COMPONENT ONLY AFTER APPLYING THE COLOR COAT.**

DISCLAIMER: Good coatings do not overcome bad surface preparation or application.

Coating of the Exterior surface:

1. Metal surface temperature is at 65°F-80°F
2. Handle clean parts with gloves avoiding direct skin to substrate contact.
3. Shake aerosol can aggressively for a minimum of two minutes after you first hear ball moving in can - this will disperse the solids that settled in the aerosol can.
4. Spray booth or work area humidity should be moderate when applying the product.
5. Subtle airflow through the spray booth or work area is best for proper spraying and limits waste through air filtration system.
6. Hang part in a manner that allows the applicator easiest access to all surfaces.
7. Keep aerosol nozzle 3" to 6" from the surface of the part.
8. Start in recessed areas or joints first and then work out to more open and straight surfaces. This will prevent excessive build-up or "mud-caking" of the coating
9. Allow the coating to flash off, and dry to the touch
 - a. Dry time can vary based on booth temps, humidity and other environmental conditions.

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- b. Do not accelerate dry time with heat until the coating is dry to touch. Air movement and temperatures up to 100°F is acceptable after the flash-off has completed (ie. coating no longer looks wet or moist).
- c. Allow 8 hour air dry time between Primer and Color coats.

Curing of the coating:



ZYCOR can be cured in two ways:

- **Air Cure.** ZyCor coated parts will air dry tack and thumb print free in 15 minutes and will fully dry in 8-12 hours. Allow One hour minimum dry time between coats at 60-90°F. Allow 24 hours of air cure at ambient temperatures of 60-90°F prior to shipping, the coating is ready to be put into use. If air cured avoid mechanical abrasion or scratching during shipping/handling.
- **Oven Cure.** ZyCor coating will “dry to the touch” in 30-60 minutes and part can now be placed into a convection oven at 350°F for 30 minutes. **** IF YOU ARE APPLYING THE ZYCOR PRIMER & ZYCOR COLOR COAT AS A TOP COAT – IT IS IMPERATIVE THAT YOU DO NOT OVEN CURE THE PRIMER. ALLOW PRIMER COATING TO AIR DRY FOR 8 HOURS – THEN APPLY THE COLOR COAT. OVEN CURE THE COMPONENT ONLY AFTER BOTH COATS ARE APPLIED. COMPONENTS COATED WITH THE ZYCOR PRIMER AND ZYCOR COLOR COATS WILL HEAT CURE WHEN PLACED INTO SERVICE.**

NOTE: When placing the air cured component in service the first time after coating - it is important to ramp up the temperature slowly to allow coating to “fully cure. We recommend running the engine at idle for 15-20 minutes to allow surface temperatures to ramp up - avoid “spike” in surface temperature.



Disclaimer

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on our behalf of ZyCoat, LLC. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your ZyCoat, LLC representative to obtain the most recent Product Data Information and Application Bulletin.

Safety Precautions

Refer to the SDS sheet before use.

Warranty

ZyCoat, LLC warrants our products to be free of manufacturing defects in accord with applicable ZyCoat, LLC quality control procedures. Liability for products proven defective, if any, is limited to replacement of the defective product or the refund of the purchase price paid for the defective product as determined by ZyCoat, LLC. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY ZyCoat, LLC, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.