



APPLICATION GUIDE

S-140 High Temp White Application Guide

***Preparation of substrate is crucial for maximum adhesion and performance of this material**

1. Remove all coatings, oils, and contaminants from the substrate with either a degreasing chemical (acetone, brake parts cleaner, Simple Green®) and/or by heating the substrate to temperatures high enough to remove coatings or contaminants. From this point on, it is critical to avoid touching the parts with your bare hands. Use powder-free or Nitrile gloves to handle the parts.
2. Plug/mask off any areas that you do not want coated. Improper masking on certain mechanical parts may cause tolerance or functionality issues.
3. A sand blasted profile must be applied to the substrate to remove any rust, scale, or other coatings. This is also required to ensure maximum coating adhesion. For best results, blast at 80–100 PSI using a 100-Grit aluminum oxide or garnet sand for mild steel and or aluminum. 80-Grit aluminum oxide and garnet sand may be used for hardened metals such as titanium, Inconel, and stainless steel at 80-100psi.
4. Fixture parts to allow for the best view and application access, this can be done by using support wires or hooks. Make sure to place parts in such a way that they will not bump into each other.
5. We recommend, but do not require that the metal parts are placed in an oven at 300°F (148°C) for approximately 30 minutes. This will evaporate any surface moisture or solvents from de-greasing, while also drawing out any possible trapped oils or contamination. Parts will have to be re-prepped (degrease, gas-out, sandblast) if there are any indications of contamination.
6. Shake the product for 5-15 minutes depending on container size, until the coating is completely mixed and no solids remain in the bottom of the container. Failure to completely disperse the product will result in poor chemical ratios and product failure.
7. Using a 150-Mesh strainer filter the coating into a high-quality HVLP/LVLP detail spray gun with a 0.8 mm tip, such as an IWATA LPH-80 (Cerakote Part #SE-138).
8. Blow off the substrate with a high-pressure air nozzle to remove any sand blasting media/dust left on the surface. Work in a well-ventilated area and always wear proper Personal Protective Equipment (PPE) when applying the product (i.e. safety goggles and respirator.) See the Safety Data Sheet (SDS) for additional information.
9. For best application results, set the spray gun pressure to 25-30 PSI. The recommended film thickness is 1.0-1.50 mils. Ensure when coating parts with complex geometry, watch overlap to prevent excessive film thickness. Prior to coating the intended product, practice on sample parts and ensure you apply the correct film thickness prior to final application. Refer to the Technical Data Sheet (TDS) for coating performance specifics.
10. Allow coated parts to ambiently flash for 15 minutes. Until this point the coating is still wet. Place the parts into a cure oven at a temperature of 300f for 1 hour. The coating will then be ready to be handled once cooled. Parts may be used in high temperature applications after 24 hours of application. Note: Recommend wearing clean gloves to handle the parts after cooling, during packaging and during installation as fingerprint oils may be permanently retained once heat is applied.
11. Clean tools and equipment with Acetone. Do not mix with other Cerakote waste streams.

*Please contact a **Cerakote** technician with questions on proper use and/or application. Onsite or offsite training courses are available for further instruction. **Consult your SDS for proper handling, disposal, cautions while using this product.***

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The information contained in this bulletin we believe to be correct to the best of our knowledge and testing. The recommendations and suggestions herein are made without guarantee or representation as to results. We recommend that you make adequate tests in your laboratory or plant to determine if this product meets all your requirements.

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