



# APPLICATION GUIDE

## Low Reflectance Black (LRB)

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

1. Remove all coatings, oils, and contaminants from the substrate with a degreasing chemical (acetone, brake parts cleaner, Isopropyl alcohol, or Simple Green®) or by heating the substrate to temperatures high enough to remove coatings and contaminants. From this point on, avoiding touching the parts with your bare hands is critical. Use powder-free or Nitrile gloves to handle the parts.
2. Plug/mask off any areas you do not want to be 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 primarily required to ensure maximum coating adhesion. For best results, sandblast metals at 80 – 100 PSI using a 100 – Mesh dry grit material such as aluminum oxide or garnet sand. Glass beads are not recommended as they are not aggressive enough to produce an adequate blast profile.
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. Gas off by placing the parts into the curing oven at 250°F (121°C) for approximately 60 minutes. This will evaporate any surface moisture or solvents from degreasing while also drawing out any possible trapped oils or contaminants. Parts will have to be re-prepped (degrease, gas-out, sandblast) if there are any indications of contaminates.
6. Shake the product (5-15 minutes) 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. Use a 150-mesh strainer (89-micron) and 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, gloves, and respirator.) See the Safety Data Sheet (SDS) for additional information.
9. For best application results, set the spray gun pressure to 20 – 25 PSI. Apply 2 to 3 coats to achieve a recommended film thickness of 0.75 – 1.0 mil (0.00075" – 0.001"). Work from the most difficult surface out to the easiest. The use of a small spray pattern will aid in coating hard-to-reach spots without excessive build-up in surrounding areas. Refer to the Technical Data Sheet (TDS) for coating composition specifics.
10. Allow the coated parts to ambiently flash for a minimum of 15 minutes or until the solvents have fully evaporated.
11. Place parts into a convection-style oven set to 180°F and allow parts to heat for one hour to reach part metal temperature.
12. Fully cure parts by allowing them to air-dry for a full 24 hours. Prior to this point, the coating can remain soft, so take care to not bump or touch parts with bare hands.
13. Finished goods may be shipped following a 24-hour ambient full cure. **Do not package parts airtight if shipped prior to 24-hour full cure process.**
14. Clean tools and equipment with acetone or a comparable cleaning solvent.

*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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