

ZINC PHOSPHATE

PROCEDURE FOR PARKERIZING/PHOSPHATING METALS THAT CONTAIN IRON

This product will treat metals that contain iron, excluding chrome, stainless steel, aluminum or powder steel castings.

EQUIPMENT NEEDED:

1. Tank made of stainless steel, Pyrex glass, or enameled steel. Gray and white porcelain roasting pans work well. Plastic can be used, as long as an internal heater is used.
2. Thermometer that measures up to 210°F
3. Measuring cup (ounces)
4. Stainless steel or rubber coated tongs (8 inches or more)

DIRECTIONS: (Deviation from the following steps may cause spotting, streaking, or color variation)

1. Clean all grease and oils from the metal with an alkaline cleaner (**lye 10%** -or sodium hydroxide- and **water 90%** mix) or Easy-Off Oven Cleaner. After cleaning, rinse with water and dry. **Special note: This step is not required. Only perform this step if there is an excessive amount of grease and oils on the part. This may help the blasting process to eliminate any foreign contaminants.**
2. Glass-bead, bead blast, aluminum anodize, or sandblast the parts prior to mixing the solution. The metal has to be etched for the phosphate to chemically bond (glass beading or bead blasting is recommended because it produces a smoother finish).

NOTE: Parts should be treated no longer than 2-3 hours following the etching process (Step 2). It is extremely important: **DO NOT TOUCH PART WITH BARE HANDS** and **DO NOT USE CLEANERS OR RINSES AFTER SANDBLASTING** as this will leave a residue and create a spotty or streaky finish.

3. Mix ratio is **8 OUNCES** of concentrate with **1 GALLON** of water (which is 128 ounces). Make sure to mix enough solution to completely cover the parts. **Special Note: Heat the water first to 200-210°F before adding the concentrate (maintain heat to the "bath" during the process).** Once the proper water temperature is reached, add the concentrate, and then submerge the parts.
4. While the parts are in the solution, move them around every few minutes to get a good, even coating. When the allotted time has passed, remove the parts from the bath.

NOTE: I recommend leaving the parts in the bath for about 10 minutes. Leaving them in longer may promote a slightly darker finish, but is not a guarantee.

5. **Immediately** spray parts with WD40 when removing from bath, ensuring the surface is completely covered, then wipe dry. **Repeat this step 3 times to ensure all mineral salts are removed.**

NOTE: Completely coating the parts several times with WD-40 will stop iron streaking. It will allow the phosphates to settle into the metal pores deeper and may give a slightly darker finish.

This product can be reused if strained through a paint strainer and rebottled in a plastic container. A neutralizer or stop solution is not needed with this product, unless you are ready for disposal.

WARNING!! **Use CAUTION with this and ALL chemicals. Use of face protection plus rubber gloves is recommended. If contact with skin occurs, flush with water IMMEDIATELY.**

Stokes Group, LLC d/b/a Palmetto Enterprises I
12 Lovalley Way
Taylors, SC 29687
864-921-2844