Application of VR-514 and UC-5500 Series:

In the event that the VR-514 will be exposed to direct UV, a topcoat of UC-5500 series should be applied.

1. Following the directions above for spray application — follow steps 1 through 10
   a. Apply approximately 1.5 mils of VR-514
2. After application of VR-514, allow the VR-514 to air dry for approximately 1 hour.
3. After 1 hour has elapsed, apply the UC-5500 series topcoat.
   a. Part A and Part B are packaged in premeasured kits — with Part A being a short filled gallon allowing Part B to be added and mixed. The mixing ratio is 9 parts A to 1 part B. Mix Part A and Part B separately using an explosion-proof powder drill and blade type mixer. Add part B to Part A and thoroughly mix and blend using an explosion-proof power drill and blade type mixer. Mix only the amount that can be used within the estimated pot life. For optimum application, air and surface temperature should be from 10 to 32°C and at least 5°F above the dew point. Above 50°C, sagging may occur.
   b. Spray application is preferred. Rolling or brushing is acceptable.
   d. See UC-5500 series technical data sheet for additional information.
4. Allow the VR-514 with the UC-5500 series topcoat to air dry for at least 24–48 hours before assembly.

VR-514 Dip Application:

1. Consult SDS prior to use.
2. Do not apply if temperature is less than 5°F above dew point, or if temperature is below 45°F.
3. Consult Heresite for tank and pump recommendations.
4. Ensure as the part is prepared for dip, one will have a low point for drainage.
5. Immerse the cleaned part for 5 seconds in the reduced VR-514.
6. Upon removal of the part from the coating, apply light air pressure (approximately 15 psi) using an Air Knife or similar device to spread the air flow. Using the compressed air, remove excess coating. Minimal brushing should be required.
7. It may be deemed desirable to apply a final aesthetic spray. This can be accomplished immediately after the final dip is accomplished and prior to final bake.
8. During dip application, the viscosity must be maintained and monitored. It is recommended that the viscosity be checked every hour to ensure compliance with the specification of 17 – 19 seconds Zahn #2 EZ cup. Additional solvent and coating can be added to adjust viscosity as needed.

Spray Application For Higher Film Build:

1. Consult SDS prior to use.
2. Do not apply if temperature is less than 5°F above dew point, or if temperature is below 45°F.
3. Use standard production type spray equipment (conventional, HVLP, airless, etc.). A few starting recommendations can be found below:

Guns	Fluid	Air
Binks #2100	66-SS	66-SSx21MD-2
Graco Air Pro HVLP		

4. Spray viscosity will be dependent on type of equipment being used. Reduce per thinning instructions.
5. Spray equipment: always flush spray equipment with solvent to clean prior to applying coating.

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6. Air supply must be uncontaminated. Adjust air pressure to approximately 50 pounds at the gun and provide 15–20 pounds at pressure pot. Adjust spray gun by first opening liquid valve and then adjust air valve to give approximately an 8"–12" fan, holding gun perpendicular to the surface at a distance of 12".
7. Apply a mist bonding pass.
8. Allow to flash off for approximately a minute, but not long enough to allow film to completely dry.
9. Apply a 3–4 crisscross multi-pass maintaining a wet appearing film.
10. Allow a minimum of 15 minutes of air dry.
11. Apply another coat of VR-514 following same steps as above.
12. Repeat steps 9 and 10 until the desired film build is achieved [typically two to three coats for 4.0 to 6.0 mils (102–152 microns)].
13. VR-514 may be recoated with itself after 15–30 minutes of air dry.
14. Allow VR-514 to air dry for a minimum of 24 hours of before assembly or follow force cure schedule outlined in the Curing/Drying section.
    a. Check dry by twisting thumb while applying pressure to paint, or check with fingernail. If the VR-514 appears to be soft, let dry further and recheck. The VR-514 is dry enough if you do not leave a thumbprint in the paint, or if the films feel hard/tough using your fingernail.
        i. Temperature and humidity can dramatically impact dry times.

Curing/Drying:

Air Dry:

1. Coil should be dry to touch within 5 hours of final application — warmer temperatures will enhance dry, cooler temperatures will lengthen the dry time.

Force Cure:

1. A force cure at 180°F for 30 minutes is an option if an appropriate oven is available.

These instructions are not intended to show product recommendations for specific service. They are issued as an aid in determining correct surface preparation, mixing instructions and application. It is assumed that the proper product recommendations have been made. These instructions should be followed closely to obtain the maximum service from the materials.

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Heresite VR-500 Series coatings will withstand exposure to the fumes noted below

Acetylene
Alcohols
Alum
Aluminum chloride
Aluminum nitrate
Aluminum sulfate
Ammonium acetate
Ammonium alum
Ammonium chloride
Ammonium phosphate
Ammonium sulfate
Ammonium sulfide
Borax
Boric acid
Brine
Calcium carbonate
Calcium chloride
Calcium cyanamide
Calcium hydroxide
Calcium nitrate
Carbone dioxide
Carbon monoxide
Carbon tetrachloride
Carbonic acid
Caustic lime (dehydrated)
Chlorine fumes (up to 100 ppm)
Citric acid
Copper chloride
Copper nitrate
Dextrose
Ethylene glycol
Formaldehyde solution
Fruit juice
Gelatine
Glycerine
Glycerol
Glycols
Hydrogen gas
Hydrosufites
Lubricating oils
Manesium carbonate
Magnesium hydroxide
Magnesium oxide
Magnesium sulfate
Manganese ammonium sulfate
Manganese chloride
Manganese sulfate
Mercuric chloride
Mineral oils
Naphtha
Palmitic acid
Potassium bicarbonate
Potassium carbonate
Salt spray
Sea water
Silicic acid
Soaps
Sodium alum
Sodium aluminate
Sodium bicarbonate
Sodium silicate
Stearic acid
Stoddard solvent
Sugar
Sulfur
Surfactants
Tannic acid
Varnish
Vegetable oil
Zinc acetate
Zinc chloride
Zinc plating solution
Zinc sulfate

CAUTION: CONTAINS FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKERS MUST WEAR FRESH AIR LINE RESPIRATORS. PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRICAL EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST, WORKMERS SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES.

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Effective date: 6/12/2023

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