

# Ardrox<sup>®</sup> 321-N

A Water-Borne Acrylic, Temporary Coating for Aluminum.

## PRIMARY APPLICATION

Ardrox 321-N is a water-borne acrylic, transparent green, temporary protective coating for aluminum. This coating is hard, smooth and tightly adherent. Ardrox 321-N protects the metal from abrasion and oxidation during storage, shipment, etc. Ardrox 321-N cures rapidly at ambient temperatures and has excellent resistance toward blocking, and is easily removed with alkaline stripping compounds. Ardrox 321-N is non-flammable and meets Rule 1124 of the California South Coast Air Quality Management District.

## CHEMICAL CHARACTERISTICS

### CONCENTRATE

viscosity.....	38 ± 5 seconds at 75°F., #3 Zhan cup
solids by weight.....	32.5 ± 1.0%
solids by volume.....	29.0 ± 1.0%
theoretical coverage.....	464 sq. ft./gal at 1 mil
dry to handle .....	1 to 2 hours at 75°F ± 5°F., 50% RH
dry to stack.....	3 to 4 hours at 75°± 5°F., 50% RH
gloss, 60.....	30 ± 10°
Volatile Organic Compounds.....	234 grams/liter less water and exempt compounds

### DRY FILM

recommended thickness .....	1.0 to 2.0 mil
anti-blocking .....	excellent (fully cured)
water resistance .....	withstands humidity, splash and spray. No change after 14 days immersion in distilled water on aluminum that has been conversion coated.
solvent resistance .....	poor
acid resistance .....	fair
alkali resistance.....	very poor
UV resistance.....	good

## APPLICATION PROCEDURE

Step 1: Clean the surface

Step 2: Apply Ardrox 321-N

Step 3: Allow drying.

## **METHOD OF USE**

The surface should be cleaned, rinsed with water, and dried prior to applying Ardrox 321-N. Oil or dirt can interfere with the adhesion of Ardrox 321-N or make it difficult to remove.

Ardrox 321-N is applied full strength at ambient temperatures of 50°F to 90°F using either conventional or airless spray guns. All application equipment should be cleaned prior to use.

1. Stir Ardrox 321-N gently and thoroughly until it is uniform.
2. Conventional spray equipment: regulate the air pressure approximately 10 to 20 psi to pot and 30 to 45 psi to gun. Pressure equipment can vary with temperature and hose length. (SEE SPECIAL NOTES)  
Airless Spray equipment: regulate the inbound pressure as required to produce the best coating. Hold the gun approximately 2 feet from the surface. (SEE SPECIAL NOTES)
3. Apply an even wet coating of Ardrox 321-N by making parallel passes with a 50% overlap.
4. Check the wet film thickness with a wet film thickness gauge.
5. If necessary, apply another coating by making vertical passes at right angle to the first application, also with a 50% overlap.
6. Allow the coating to dry at 75°F, 50% RH, for at least 3 to 4 hours.

Note: After applying Ardrox 321-N, first flush the equipment with water, then with organic solvent such as MEK.

## **SPECIAL NOTES**

If using Ardrox® 321-N in confined areas, wear a fresh air mask, goggles and rubber gloves while applying. If necessary, circulate fresh air continuously while applying and drying.

Also, eliminate all sources of ignition (flames, sparks, welding, smoking, etc.) and use explosion proof equipment.

## **EQUIPMENT REQUIRED**

### **Conventional Spray:**

Standard conventional spray equipment such as DeVilbiss MBC or JGA equipment with a 765 Air Cap and F or E Fluid Tip or equivalent. Pressures recommended to produce satisfactory spray patterns under most conditions are 10 to 20 pounds fluid pressure and 30 to 40 pounds air pressure.

### **Airless Spray:**

Use equipment having a pump ration of 28:1 with an inbound pressure of 100 psi. The spray head may vary with the application, but a fluid tip with 0.015 or 0.017 inch orifice, or equivalent, is suitable for most work.

## **NOTES ON USE**

Ardrox 321-N has been formulated for use on aluminum alloys. For optimum performance the aluminum surface must be conversion coated prior to application of the Ardrox 321-N. The coating does not have good water resistance on bare, untreated aluminum.

Ardrox 321-N can be applied over primers and top coats. It should not be applied to corrodible mild steels or plastic transparencies.

## SAFETY AND HANDLING

Prior to handling and use of any of the materials referenced in this document, the Material Safety Data Sheets should be read and understood by all personnel in contact with these materials.

## KEEP OUT OF REACH OF CHILDREN

## STORAGE

Dry indoor storage at temperatures between 40°F and 100°F is recommended, away from any incompatible materials referenced in the Material Safety Data Sheets. All containers should be tightly closed when not in use.

## SHELF LIFE

The shelf life is 1 year.

## DISPOSAL

Any disposal of the materials referenced in this document should be in accordance with all applicable federal, state, and local regulations. The process solution can contain components other than those present in the materials as supplied. Analysis of process solutions may be required prior to disposal.

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