

## EnduraCoat Ultra Stain Resist Technical Data Sheet

EnduraCoat Ultra Stain Resist is a super flexible, low VOC aqueous clear coat specially formulated for use on digitally printed materials used for transit graphics and other applications requiring maximum outdoor durability for up to 5 years. Ultra Stain Resist is recognized as being superior in stain resistance from a variety of paints and commercial oil and solvent pen markers. Ultra Stain Resist is made the highest grade of non-yellowing urethane polymers allowing it to replicate the performance of many 1 and 2k solvent coatings without all of the disadvantages of dealing with a solvent liquid. The addition of UVA absorbers and hindered amine light stabilizers (HALS) ensures that the prints you coat will be protected from harsh UV radiation typically known to degrade color in prints.

### Typical Applications

Typical applications include coating of digitally printed PSV and Flex and Reinforced PVC for many transit applications including truck curtains, mobile signage, truck sides, front and backlit signage, decals and other advertisements used on buses and other vehicles where tagging is an issue.

EnduraCoat Ultra Stain Resist is compatible with most commercially available flood coaters using a mayer bar.

### Recommended Substrates

- PSV (Cast and Calendared)
- Flex and Reinforced PVC (tarpaulins)

### Recommended Printer/Ink Systems:

- Traditional True Solvent based Inks
- HP Latex Inks/Prints

### Performance Properties

- Excellent intercoat adhesion (layer to layer)
- Weld able (Hot Air and RF)
- Superb water and moisture resistance
- Superior conformability (elongation) properties
- Excellent resistance to blocking
- Gloss level of 92 to 94 units at **60°**
- Excellent Slip (low surface energy)
- Excellent chemical resistance to aromatic cleaners
- Good resistance to gasoline
- Excellent mar and scratch resistance after full cure
- Wide thermal dynamic range for increased flexibility in production (can use higher heat range)
- Non-yellowing formulation

### Coating & Equipment Compatibility

Viscosity Target	Mayer based Flood Coater	Manual Applicator
Using #2 Zahn	18 to 22 sec	undiluted

**(Dilute with distilled water only)**

### Instructions for Use:

EnduraCoat Ultra Stain Resist comes pre-mixed for use in automated flood coaters with a viscosity between 18 and 22 seconds in a #2 Zahn. Depending on the application method used, **dilution may be required**. This product may be sprayed, applied using a wax applicator or applied through a conventional flood coater such as the AFC series from Drytac.

While this coating is supplied in coater ready condition it should be mixed well prior to use each and every time

Optimal temperature for this coating is 65-90°F (18-32°C). At lower temperatures the coating will have heavier viscosity and will not flow properly. Allow at least a 10 to 15 minute warm up period (with coating flowing) prior to use.

If coating freezes, allow to warm to room temperature before use. Alternatively, container may be placed in warm bath of 80°F/ 27°C for 30 minutes and then mixed thoroughly with drill and paddle or spindle paint mixer until clumps dissolve.

**For use on Automated Flood Coaters:** For use on graphics requiring extended outdoor durability to 3 years, the #26 bar is recommended for outdoor durability to 5 years, the #36 bar is recommended. All bars to be used in static mode.

**For use in HVLP Sprayers:** Adjust to proper viscosity and filter prior to adding to tank. Start out with a pressure of 50 psi and adjust fan so that an even mist is produced that is heavy enough to stick to the print, but not run. Practice using broad sweeping (horizontal) strokes, overlapping slightly. Be sure to wear protective eye wear and an appropriate respirator.

**For use with manual applicator:** Use undiluted for best results. We recommend the use of a rubber based squeegee or a wool wax applicator. Pour the coating onto the graphic being coated into one corner. Work the coating across and down the substrate using an "M" or figure 8 motion, being careful not to raise and lower the applicator too often, causing bubbles. If a rubber squeegee is used, simply work from side to side, with slight overlaps between draw downs.

### Curing Properties

When fully cured, final film properties (scratch and chemical resistance) are available 24 hours after polymerization

Cure Times	Roll Coater	HVLP gun	Manual Applicator
before stacking	immediate	45-60min	45-60min

### Typical Coverage

Coverage Rates per gallon	Flood Coater	HVLP gun	Manual Applicator
Manual Coating	N/A	400 sq/ft	460sq/ft
Smooth Bar	2254 sq/ft		
#12 Mayer Bar	1315 sq/ft		
#18 Mayer Bar	877 sq/ft		
#26 Mayer Bar	607 sq/ft		

### Light Fastness

High quality UV absorbers and HALS have been added to this product. While we are confident the use of this coating will extend print life, we recommend that you contact the ink manufacturer to obtain base durability information and conditions affecting the long term durability for the inks you are using.

Use of this product will help protect the ink from exposure to many elements that tend to degrade inks faster, such as water, moisture, air and dust contaminants, abrasion and scratching.

### Storage

Care should be taken to store the coating in tightly closed containers located in a cool place (60-80°F/15-27°C). With suitable conditions, unopened coating is expected to have a shelf life of approximately 12 months from date of manufacture.

### Clean Up

Use clean hot water with a solution of 5 to 10% IPA to clean lines, rollers, tank, etc off coating. Do not let coating dry on painted surfaces.

Please consult Drytac Technical Service for further information **1-800-280-6013**

### Recommended Cleaners for use on coated graphics: (only after 48 hour cure time)

Soap & Water	De-Solv-It	Formula 409
Turpentine	Mineral Spirits	Fantastic
WD 40	MEK*	99% IPA*
Goof Off	Acetone *	

\* Prolonged contact may soften coating

\*\* Not recommended

### Precautions

Read the material safety data sheet prior to processing. It contains instructions for precautions when handling clear coats. If clear coat comes in contact with skin, wipe clear coat off with a clean, dry cloth (do not use solvent). Wash and rinse the affected area with soap and water.

**Availability:** EnduraCoat Ultra Stain Resist is available in Gloss Only (ECWBUSR).

## IMPORTANT MESSAGE

We strongly recommend a preliminary test of printing and curing on the substrates intended for use, in order to ascertain the exact procedure, the working times and the obtained affect. Follow the indications on the package, ask for the safety data sheets and always follow the indications contained therein.

Only the correct use of the product will allow satisfactory results. For this reason, Drytac is not responsible for the improper use of the product, either by the substrate applied to or application. Make certain that the product is right for the desired use and works according to the instructions given in our technical data sheets. If in doubt of the appropriate application methods or use, contact Drytac at one of the phone numbers listed below.

\*Note: 25 microns equal 1 mil