



## DYNACOLOR™ DATA SHEET

### GLOW-IN-THE-DARK WATER-BASED FLEXOGRAPHIC INK

#### DESCRIPTION

**DYNACOLOR™** Glow-in-the-dark Water-based flexo inks have a light, cream color when they are printed. The pigments are charged by a broad spectrum of wavelengths but ideally with UV light. The charge time varies between 5 and 30 minutes depending on light intensity. After the ink is fully charged the afterglow will last up to 8 hours. Because the pigments have such a high specific gravity the ink must be **stirred well** to ensure uniform pigment distribution.

#### TYPICAL PROPERTIES

Viscosity (at 25° C, #2 Zahn Cup)	20-50 sec
Density (Approx.)	10.4 lb./gal
Appearance	Viscous Liquid
Percent Solids (Approx.)	80-90%
Percent Volatiles (Approx.)	<10%
Food Contact Compliance Status	Approved for Indirect Food Contact
Yield Range (Approx.)	10,000-75,000 in <sup>2</sup> /lb. (depending on film thickness)
Recommended Substrates	Paper, Film

#### STORAGE AND HANDLING

The inks have excellent stability when stored away from heat. The material is combustible and should not be used near open flame. Store Below 90° F. Two-part system should be blended and used within nine months of purchase. Storage of two-part system longer than twelve months not recommended. Once two-part system is blended the ink should be used immediately. Consult product MSDS prior to use.

#### SPECIAL CARE INSTRUCTIONS

**DYNACOLOR™** flexo ink is simple to use, but it is a little different from other water-based flexo inks. The differences between our ink and regular water-based flexo inks are outlined below. The instructions below should be followed carefully to achieve optimal results. One of the main objectives in this process is to increase the coating weight. Glow-in-the-dark ink has a larger particle size than regular inks. The way to achieve the brightest glow is to get the highest coating weight possible. If you have your own techniques for increasing coating weight, feel free to try them as well. This ink will be supplied in a **TWO-PART** system. It is important to note that the pigments are extremely sensitive to water and will stop glowing after a few days in water. Therefore, the varnish and the pigment must be blended press-side and printed immediately thereafter. Any unused ink at the end of a run should be discarded.

- Use the smallest anilox number possible. It should be lower than 300. An anilox of below 150 is recommended where strong glow is desired.
- Use a hard sticky-back.
- Use rubber plates with soft durometer.
- Use very little nip pressure.
- Use a doctor blade instead of a metering roller. If the doctor blade is metallic, be sure the anilox used with the doctor blade is ceramic.
- The viscosity of the formulations varies slightly between colors and will be on the high side. This higher viscosity is by design. The results achieved using this thicker ink will be superior to lower viscosity glow-in-the dark inks. Lower the viscosity by adding distilled water.

- The volume of the cells should be as high as possible.
- Be sure to stir the ink well before and during use. Upon extended storage, the ink may separate. This can be remedied by stirring well before use.
- Clean up with regular solvent. Be sure the press is dry before adding any ink to it.

## **SENSITIVITY**

Glow-in-the-dark materials are fairly stable. However, there are a few considerations that are worth mentioning.

**LIGHT:** The light fastness of these materials is excellent. This makes the inks suitable for a variety of outdoor applications.

**CHEMICALS:** Glow-in-the-dark materials are sensitive to water and acid exposure. However, once the ink has been printed and cured/dried, the resins and vehicles provide excellent protection.

**CONCLUSION:** In short, this ink has good stability and can be used for many applications that were previously not possible.

For further information or assistance, please contact Chromatic Technologies, Inc. at (888) 294-4CTI.

**DISCLAIMER:** The information and data contained herein are believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since CTI cannot know all of the uses to which its products may be put, or the conditions of use, it makes no warranties concerning the fitness or suitability of its products for a particular use or purpose. You should thoroughly test any proposed use of our products and independently conclude satisfactory performance in your application. Likewise, if the manner in which our products are used requires government approval or clearance, you must obtain it. CTI warrants only that its products will meet its specifications. There is no warranty of merchantability or fitness for use, nor any other express or implied warranty. The user's exclusive remedy and CTI's sole liability is limited to refund of the purchase price or replacement of any product shown to be otherwise than warranted. CTI will not be liable for incidental or consequential damages of any kind. Suggestions of uses should not be taken as inducements to infringe any patents.