

Technical Product Information

Thermochromic Function: Irreversible

Product Name: Kromagen™ YG37-NH Screen Ink

Last Revision: 26/01/2014

Kromagen™ YG37-NH Screen Ink is a water based screen ink.

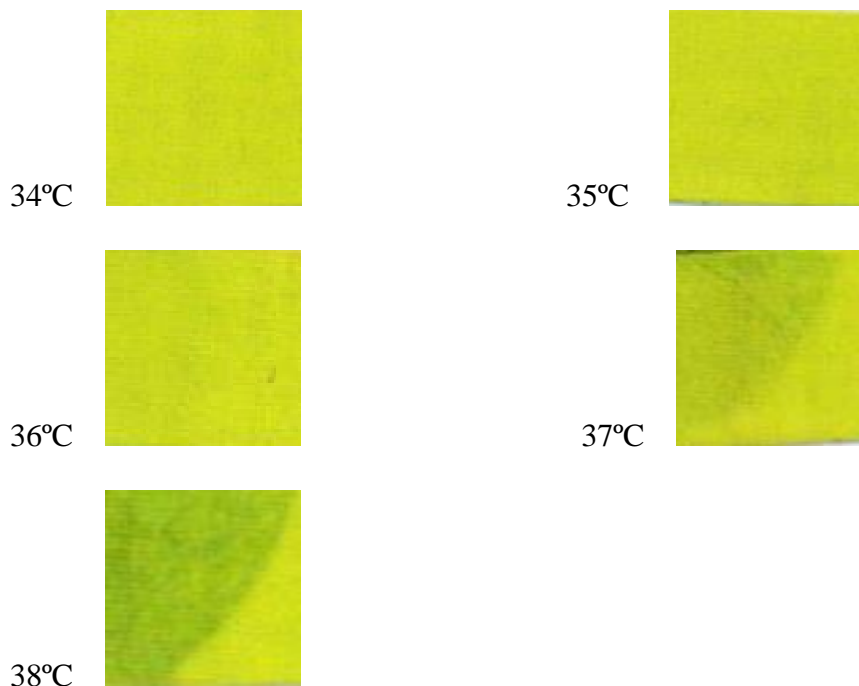
Application

The ink is a development product supplied for evaluation. Viscosity has been set between 1300 – 1400cps initially for possible rotary screen use.

The ink should be stirred thoroughly before use as settlement on standing may occur. The compatibility of the any additives or varnishes should be established by the user.

Colour Change Properties

The colour change profile for Kromagen™ YG37-NH Screen Ink is shown below.



The green colour change starts at approximately 37°C. All samples above had been held at temperature for 30 minutes but the colour changes at 37°C and 38°C occur after 10-15 seconds at temperature. An unheated area in the sample has been shown for contrast.

Recommended Printing Parameters

Screen Configuration

The optimum screen configuration depends on several factors, the most important of which is the desired opacity and colour of the finished product.

The theoretical ink volume of the screen is crucial for the desired effect. Using a higher theoretical ink volume will increase the intensity of colour of the product when below its activated.

	European / US Measurement
Recommended Mesh Size	120T / 310
Minimum Mesh Size	150T / 379

Do not allow the ink to sit dormant on the screen as this will cause 'drying in' on the screen and affect print definition and quality.

Ink Consumption

Typical ink consumption for Kromagen™ Irreversible Water Based Screen Ink on a 70T mesh is approx 30 – 35gms per sqm.

Dilution

The printing ink is supplied in a format that once mixed is at printing viscosity. Should the ink need to be thinned to suit application then water should be used. No alternative thinners should be used as these will affect the performance of the ink.

Drying

The ink should be dried avoiding hot air dryers or IR lamps if the irreversible colour change is liable to be triggered in the drying system used. Care should be taken when stacking the finished product as if too much pressure is applied to uncoated ink (not varnished or laminated) offsetting of the print can occur. The dried print will have only moderate water resistance. If better water resistance is required the addition of up to 2% aziridine crosslinking agent may be used. Alternatively a protective over lacquer of comparable water based varnish may be applied but heat should be avoided in drying.

Mixing Instructions

Contents may settle on transit. Ink should be thoroughly mixed using a mechanical stirrer prior to application.

Storage

Kromagen Irreversible Water Pigment Concentrate should be stored away from solvents, sources of UV light, frost and high temperature to gain optimum performance from the product. The concentrate will settle on standing and should be thoroughly mixed before use.

It is a water based product and it is important to keep the containers tightly shut to avoid evaporation and skinning of the product.

Shelf Life

6 Months

Do not store in temperatures in Excess of 25°C / 77°F. Do not freeze. Please consult MSDS prior use.

Information in this Product Data Sheet is compiled from our general experience and data obtained from various technical publications. While we believe that the information provided herein is accurate at the date hereof, no responsibility for its completeness or accuracy can be assumed. Tests at TMC HALLCREST are carried out under controlled laboratory conditions. Information is given in good faith, but without commitment as conditions vary in every case. The information is provided solely for consideration, investigation and verification by the user. TMC HALLCREST do not except any liability for any loss, damage or injury resulting from its use (except as required by law). Please refer to the Material Safety Data Sheet before using products to ensure safe handling.