

# Permanent Thermo-chromic Change Pigments & Coatings

## Product Data Sheet

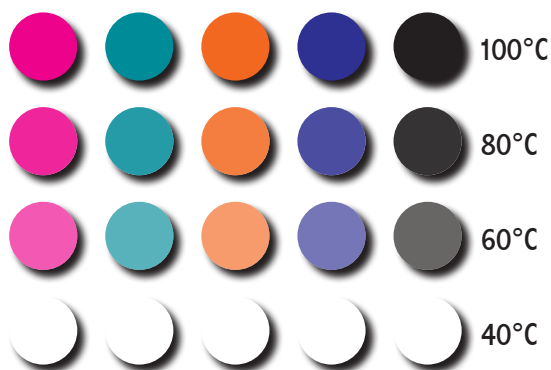
### Color Change Background

Test prints of various LCRHallcrest Permanent Thermo-chromic Change Pigments & Coatings were heated for 3 minutes and measured for color density.

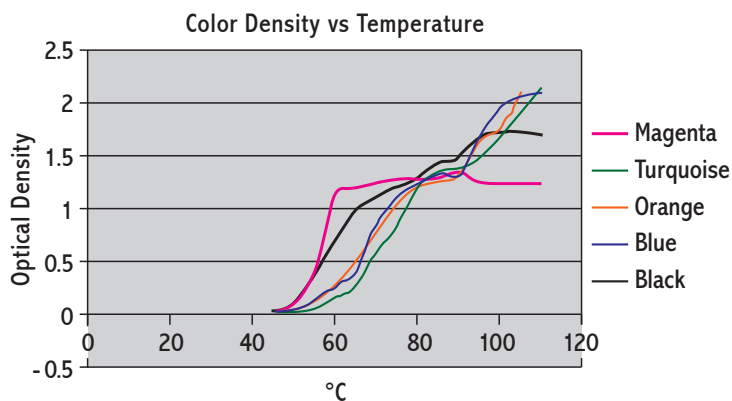
Magenta, closely followed by Black reached the strongest color point at 60°C of the colors measured. The color change for magenta and black is sharp.

Turquoise, Orange and Blue need a higher temperature point to reach a comparable density and have a more gradual color change profile.

NOTE: Magenta is best for lower temperature activation; at 60°C it shows good color.



**As Temperature Increases  
Color Density Increases**



This information is for illustration only; It has been developed under strict laboratory conditions. The user should test and verify that the ink works for their particular application.

### CONCENTRATE

Primarily intended for use in the formulation of paints using water based resins or binders.

#### PIGMENT CONCENTRATES

**Solids:** 48% ± 2%

**Pigment Concentration:** 39% ± 2%

**Particle Size:** 95% < 15 µm

**pH:** 6-8 depending on range

**Light Fastness:** 1-3 (BWS) depending on color

### INKS

Printing methods including Screen and Flexographic onto print receptive plastics and absorbent surfaces such as paper.

#### WATER BASED INKS

**Solids:** 44% ± 2%

**Pigment Concentration**

**Flexo:** 26% ± 2%

**Screen:** 29% ± 2%

**Particle Size:** 95% < 15 µm

**pH:** 6-8 depending on range

**Light Fastness:** 1-3 (BWS) depending on color

### Temperature Range

60° - 200°C

### Storage

A shelf life of 1 year is guaranteed provided that the containers are not opened and are stored in an ambient temperature of 16 to 22°C with no exposure to UV (Sun) light. Concentrates may be subject to settlement on standing and should be stirred well before use.

Safety Data Sheet Irreversible Thermo-chromic Ink NH SDS004 Rev4 available upon request