



# THERMOCHROMIC INKS

INNOVATIVE INKS WITH  
REVEALING QUALITIES

When rubbed, this heat-activated ink will change to a colorless state or to another color. Then, within seconds, the ink will revert to its original color. Document authentication is as easy as rubbing the printed area between two fingers to trigger the color change. Thermo-chromic ink is an excellent security device to authenticate a genuine document or to reveal a counterfeit.

## Security Features

Thermo-chromic inks provide effective overt security, producing effects that cannot be replicated by digital equipment such as photocopiers or scanners. Security features include:

- Simple to verify with human touch, no special devices needed to authenticate
- Color changing effect is impossible to photocopy or digitally recreate
- UV invisible fluorescent marker can be added as secondary security feature
- Can be combined with other secure inks for additional protection

## Applications

Applications for thermo-chromics include:

- Official vital records
- Checks
- Event tickets
- Excise/fiduciary/postage stamps
- Lottery tickets
- Security labels
- Share/bond certificates
- Gift certificates/cards
- Transport tickets

## Design Options

Two types of color changes are available, color to colorless and color to color.

- Blue
- Gray
- Green to Yellow
- Magenta
- Orange to Yellow
- Pink
- Purple
- Vermilion



THERMOCHROMIC SPECIMEN DISPLAYING INK CHANGING TO COLORLESS STATE AND ANOTHER COLOR UPON HEAT-ACTIVATION BY RUBBING FINGERS TOGETHER

## Environmentally Friendly

Already containing low concentrations of volatile organic compounds (VOCs) and BPA (bisphenol A) free, SICPA's new thermo-chromic ink system now has a reduced level of formaldehyde; making it the most environmentally friendly thermo-chromic ink system in the market today.

## Technical and Printing Information

While various activation temperature ranges can be made available, 31C (color appears at 78.8°F/26°C and becomes colorless at 88°F/31°C) is SICPA's standard for security documents. For optimum results, solid printing areas are recommended. Thermo-chromic inks can be produced in dry/wet offset and UV flexo formulations for printing on paper (coated/uncoated) and synthetic substrates. A detailed technical data sheet is available upon request.

## About SICPA

Founded in 1927, SICPA is the leading global provider of security ink solutions and integrated systems, protecting the majority of the world's banknotes, excised products and branded goods. Our services successfully protect products and brands in industry sectors as diverse as health and personal care, food and beverage, fast moving consumer goods and spare parts.

Technical information in this document is subject to change without notice. For additional information, please contact your sales or technical representative.

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