

Technology Notes

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What is Thermochromic Masterbatch?

- Thermochromic Pigment for Plastics
- Uses include temperature driven Color Changing Cups, Spoons, Bowls & Stirrers that create consumer engagement with reusable plastics





COLOR CHANGING EFFECTS

Thermochromic Masterbatch is a range of temperature sensitive thermochromic pellets containing Leuco Dyes which change from colored to colorless as temperature rises. The color reappears when the temperature is reduced again.

Encapsulated Leuco Dyes (LD) undergo a reversible color change that occurs over a

temperature differential of approximately 5°F (2.8°C). The capsules are engineered to change color over a broad range of temperatures.

- **Colors:** Red, Orange, Yellow, Green, Bright Green, Blue, Purple, Magenta, Black, Turquoise and Vermillion
- Temp range: -10 to 69°C/ 24 to 154°F
- Works best: in PP, PE, HDPE, LDPE, PVC, EVA, PS and SAN

BLENDING EFFECTS

Color changing effects can be varied infinitely by blending Thermochromic Masterbatch with other translucent or opaque masterbatches. LCR Hallcrest Masterbatch is supplied in concentrate form and is ideally suited for use in polyolefins. We recommend that all direct food contact applications be independently tested by a 3rd party testing house.

Where to Buy?

LCR Hallcrest is a leading supplier of Thermochromic Masterbatch. Visit www.hallcrest.com or call us at 847.998.8580.

About LCR Hallcrest: The company is the leading international manufacturer of "SMART" color and chemical changing labels, thermometers, pigments and graphics that react to environmental and temperature fluctuations, providing visible evidence of change and measurement with inhouse design, development and manufacturing capability.