

IR Signature Control Low Emissivity Thermal Products

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Opticorp Inc. IR Signature Control Low Emissivity Thermal Products, available in tape or fabric, are used by the DOD in camouflage and other applications where proper visible and infrared characteristics are critical.

Visible colors match current camouflage materials. Infrared emission is extremely low.

The products are fabricated primarily as self-adhesive sheets with release paper for use as "peel and stick" appliques.

Applications include [boresight panels](#), [battleground reference panels](#) and [no-power thermal targets](#).

Technical description

Opticorp Inc. IR SIGNATURE CONTROL Low Emissivity Thermal Products are manufactured by integrating a highly reflecting, low emissivity coating with a visual pigmentation layer such that the resulting material exhibits low emissivity in the thermal infrared, while maintaining visual and near infrared reflectance characteristics that are consistent with conventional camouflage materials. The visual gloss is matte, so the materials nearly match low gloss paint. Gloss level is less than 5.0 at 85 degrees, and less than 2.75 at 60 degrees. These materials are available in a variety of visual colors and in a variety of thermal infrared emissivities. Typical values for the infrared emissivity in the 8-12 micron band range from 0.25-0.3. The following graph indicates the measured IR emissivity in the 8-12 micron band.

Tan 686 Tape

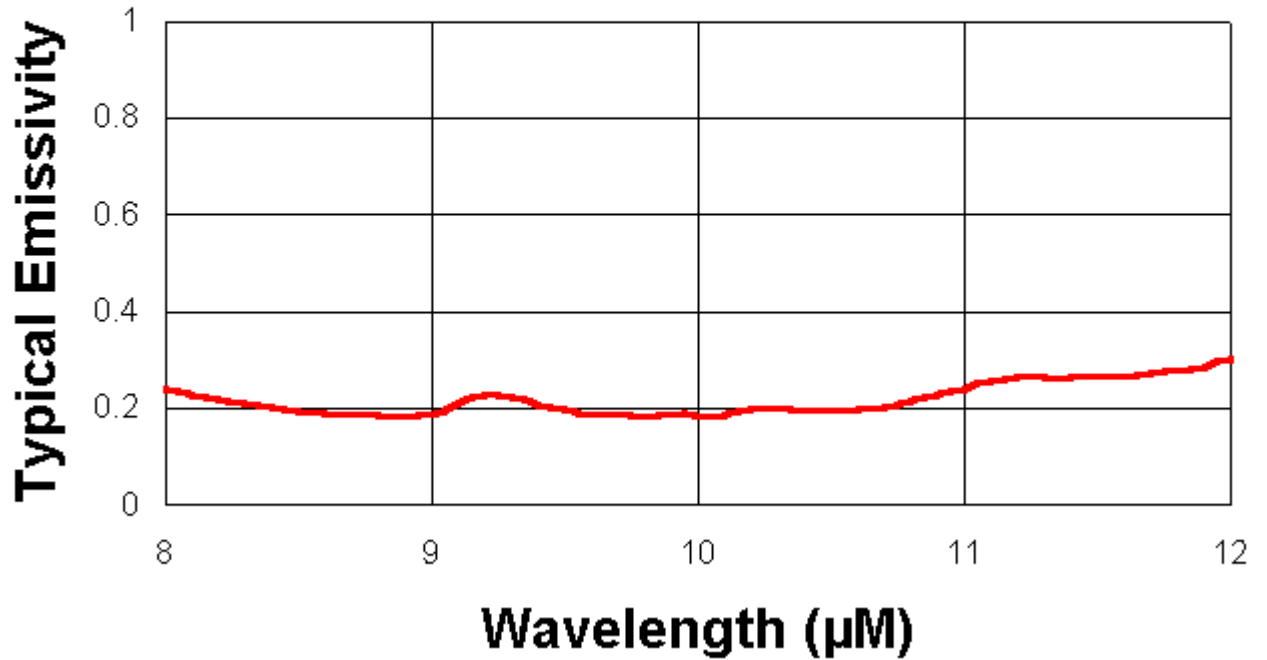


Figure 1: Measured Infrared Emissivity of Tan 686 Tape

DOD Ordering information

The green and tan material is available through the Defense Supply Depot as tape with adhesive/release paper backing in rolls 3.75 inches wide by 150 linear feet (47 square feet/roll). They have an infrared emissivity less than 0.3 in the 8-12 micron band:

Tape, Low Emissivity, Green 383 NSN 9905-01-390-7410 Units: Rolls

Tape, Low Emissivity, Tan 686 NSN 9905-01-392-2928 Units: Rolls

Custom orders

Opticorp Inc. IR SIGNATURE CONTROL Low Emissivity Thermal Products are available from Opticorp in widths up to 58 inches, The material is available with or without adhesive backing. The material can be integrated with fabric for use as tarps, tents, or even uniforms. Colors other than the standard TAN 686 and GREEN 383 are available on a custom basis, including UN blue, white, high visibility orange, gray, etc. The products may be designed to meet your specific requirements for color, emissivity, gloss, etc.

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