

# CHO-FOIL® & CHO-FAB™ Shielding Tapes

## CHO-FOIL EMI Shielding Tape with Conductive Adhesive (Copper, Aluminum or Tinned Copper)



Chomerics' CHO-FOIL tapes are an economical EMI shielding solution for a variety of commercial uses. The tapes are available in copper, aluminum, or tinned copper foil backed with Chomerics' highly conductive pressure-sensitive adhesive\*. Typical properties are shown in Table 1 on the next page, and reliability data appears in Table

4 on page 148. CHO-FOIL copper tape is available with a non-conductive adhesive for applications requiring surface conductivity only. An embossed version of CHO-FOIL copper tape is also available, for a more attractive appearance up to 6 inches (152 mm) wide. Standard length rolls and die-cut custom shapes can be ordered.

### Typical Applications for CHO-FOIL and CHO-FAB EMI Shielding Tapes

- Provide a low impedance connection between a braided cable shield and the metal connector backshell in molded cables. An effective EMI shielded assembly can be achieved without soldering the tape to the braid or backshell
- EMI radiation measurement troubleshooting, using CHO-FOIL tape to shield ventilation slots or seam gaps
- Provide electrical continuity in seams of EMI shielded rooms and electronic enclosures
- Supply electrical contact to surfaces that can't be soldered to, such as conductive plastic or aluminum
- EMI shield for cables by wrapping the tape around the cable. An overlap is recommended
- ESD shielding
- Provide corrosion-resistant ground contact points
- Fabric tape available where weight and flexibility are important, such as for wrapping cables

## CHO-FAB EMI Shielding Fabric Tape with Conductive Adhesive



CHO-FAB tape is a corrosion resistant nickel-plated cloth coated with Chomerics' highly conductive pressure-sensitive adhesive\*. CHO-FAB tape is extremely strong and lightweight, and has excellent conformability/wrapability to enhance shielding performance and appearance. Use of corrosion resistant nickel-plated cloth and Chomerics' superior metal-particle-filled conductive adhesive technology produces a tape used in a wide variety of EMI shielding and grounding applications. Typical properties are shown in Table 1 on the next page.

*Chofab is available in standard (CFT) and rip-stop (CRS) nylon fabric forms. Both fabrics use nickel / silver plating to provide excellent electrical and corrosion resistance properties.*

### Ordering Procedure

Refer to Tables 2 and 3. All CHO-FOIL and CHO-FAB tapes are available in standard 36 yard (32.9 m) rolls or die-cut custom configurations. Call Chomerics' Applications Engineering Department for assistance with a custom configuration.

\* Recognized Under the Component Program of Underwriters Laboratories, Inc.

**Table 1**

| PROPERTIES  |                |   |                          |                  |                         |                                    |                  |                           |                           |
|---|----------------|---|--------------------------|------------------|-------------------------|------------------------------------|------------------|---------------------------|---------------------------|
| Property  | Test Method    | Typical Values                                      |                          |                  |                         |                                    |                  |                           |                           |
| Part Number Prefix  | --             | CCH   | CCE                      | CCJ              | CCK                     | CCD                                | CAD              | CFT                       | CRS                       |
| Foil/Fabric Type  | --             | 1 oz. RA Copper                                     | 1 oz. Embossed RA Copper | Aluminum         | 1 oz. Tin-Plated Copper | 1 oz. RA Copper                    | Aluminum         | Nickel-Plated Fabric      | Nickel-Plated Fabric      |
| Foil/Fabric Thickness, mils (mm)                                    | --             | 1.4 (0.0356)  | 1.4 (0.0356)             | 2 (0.0508)       | 1.6 (0.0406)            | 1.4 (0.0356)                       | 2 (0.0508)       | 5 (0.127)                 | 4 (0.1016)                |
| Adhesive Type   | --             | Electrically Conductive, Pressure-Sensitive Acrylic |                          |                  |                         |                                    |                  |                           |                           |
| Adhesive Thickness, mils (mm)                                       | --             | 1.5 (0.0381)  |                          |                  |                         | 2 sides:<br>1.5 each (0.0381 each) |                  | 1.5 (0.0381)              | 1.5 (0.0381)              |
| Total Thickness, mils (mm)  | --             | 2.9 (0.0737)  | 4* (0.1102)              | 3.5 (0.0889)     | 3.1 (0.0787)            | 4.4 (0.1118)                       | 5 (0.127)        | 6.5 (0.165)               | 5.5 (0.1397)              |
| Temperature Range, °F (°C)  | --             | -40 to 400<br>(-40 to 205)                          |                          |                  |                         |                                    |                  | -40 to 180<br>(-40 to 82) | -40 to 180<br>(-40 to 82) |
| Electrical Resistance, ohms/in <sup>2</sup> (ohms/cm <sup>2</sup> ) | MIL-STD-202C   | <0.003 (<0.0005)                                    | <0.003 (<0.0005)         | <0.010 (<0.0016) | <0.003 (<0.0005)        | <0.010 (<0.0016)                   | <0.010 (<0.0016) | <0.100 (<0.016)           | <0.100 (<0.016)           |
| Flame Resistance  | UL Subject 510 | PASS  | MEETS                    | PASS             | PASS                    | MEETS                              | MEETS            | N/A                       | N/A                       |
| Adhesion to Aluminum oz./inch [ppi] (N/m)                           | ASTM D1000     | >40 [2.5] (438)                                     |                          |                  |                         |                                    |                  |                           |                           |

\*Embossing adds 1.1 mil

**Table 2**

| PART NUMBER           | TAPE DESCRIPTION                            |
|-----------------------|---|
| CCH – 36 – 101 – ZZZZ | Copper foil, conductive adhesive version    |
| CCE – 36 – 101 – ZZZZ | Copper foil, conductive adhesive, embossed  |
| CCJ – 36 – 201 – ZZZZ | Aluminum foil, conductive adhesive          |
| CCK – 36 – 101 – ZZZZ | Tin-plated copper foil, conductive adhesive |
| CCD – 36 – 101 – ZZZZ | Copper foil, conductive adhesive 2 sides    |
| CAD – 36 – 201 – ZZZZ | Aluminum foil, conductive adhesive 2 sides  |
| CFT – 36 – 101 – ZZZZ | Nickel-plated fabric, conductive adhesive   |

**Table 3**

| TAPE WIDTH CODES (ZZZZ) inch (mm) |               |               |               |               |              |              |              |             |             |
|-----------------------------------|---------------|---------------|---------------|---------------|--------------|--------------|--------------|-------------|-------------|
| 0050                              | 0100          | 0150          | 0200          | 0300          | 0400         | 0600         | 0800         | 1200        | 2400        |
| 0.5<br>(12.7)                     | 1.0<br>(25.4) | 1.5<br>(38.1) | 2.0<br>(50.8) | 3.0<br>(76.2) | 4.0<br>(102) | 6.0<br>(152) | 8.0<br>(203) | 12<br>(305) | 24<br>(610) |

Custom widths available up to 24 inches (61 cm)

Slit rolls are available through Chomerics' authorized distributors.

Please consult Chomerics' Applications Engineering Department for assistance with a custom application involving a need for material in other than slit roll form.

continued

