

CHO-FOIL®

EMI Shielding Metal Foil Tapes



Customer Value Proposition

Parker Chomerics CHO-FAB™ Electrically Conductive Fabric Tape is ideal for applications requiring lighter weight and a more flexible electrically conductive tape than metal foil tapes provide. CHO-FAB tape provides excellent EMI shielding and good corrosion resistance. In the case of shielded cables, CHO-FAB tape is very conformable, strong, lightweight, and doesn't have sharp edges that are present on metal foil tapes.

CHO-FAB tape provides an economical solution to applications requiring excellent electrical conductivity across substrates and offers a low-impedance connection between a braided cable shield and the metal connector back shell in molded cables.

Seams of EMI shielded rooms and other shielded test enclosure setups are more easily sealed with CHO-FAB tape than metal foil tape to provide electrical continuity and thus higher shielding effectiveness.

Contact Information

Parker Hannifin Corporation
Chomerics Division
77 Dragon Court
Woburn, MA 01801

phone 781 935 4850

fax 781 933 4318

chomailbox@parker.com

www.parker.com/chomerics



Features and Benefits

- Made of fabric tape constructed from a nickel-plated silver conductive material
- Available with single-sided acrylic electrically conductive pressure sensitive adhesive (PSA)
- Lightweight and more flexible than metal foil tapes
- Excellent shielding and good corrosion resistance performance
- Lacks sharp edges that are present on foil tapes
- Very conformable while maintaining strength
- Available as rotary kiss cut parts on rolls, die-cut parts, or in slit roll widths from 0.5 in (12.7 mm) to 24 in (609.6 mm)
- Bulk roll lengths are 18 yards (16.5 m) or 36 yards (33 m)

Typical Applications

- Enclosure shielding
- Braided cables/wires
- Mating flanges
- Grounding



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CHO-FOIL® – Product Information

Table 1 - Typical Properties

Typical Properties	Typical Values						Test Method
Part Number Prefix	CCH	CCE	CCJ	CCK	CCD	CAD	
Foil Options	Rolled Annealed (RA) Copper 1 oz	RA Copper 1 oz Embossed	Aluminum	Tin-Plated Copper 1 oz	RA Copper 1 oz	Aluminum	-
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)	-
Adhesive Types	Electrically Conductive, Pressure-Sensitive Acrylic or Non-Conductive, Pressure Sensitive Acrylic	Electrically Conductive, Pressure-Sensitive Acrylic					-
Adhesive Thickness, mils (mm)	1.5 (0.0381)				2 Sides: 1.5 each (0.0381 each)		-
Total Thickness, mils (mm)	2.9 (0.0737)	4 (0.1102)*	3.5 (0.0889)	3.1 (0.0787)	4.4 (0.11180)	5 (0.127)	-
Temperature Range, °F (°C)	-40 to 400 (-40 to 205)						-
Electrical Resistance, ohms/in ² (ohms/cm ²)	<0.003 (<0.0005)	<0.003 (<0.0005)	<0.010 (<0.0016)	<0.003 (<0.0005)	<0.010 (<0.0016)	<0.010 (<0.0016)	MIL-STD-202C Method 303
Flammability Resistance	V-0	MEETS V-0**	V-0	V-0	MEETS V-0**	MEETS V-0**	UL 94
Adhesion to Aluminum, oz/in [ppi] (N/m)	>40 [2.5] (438)						ASTM D1000
Outgassing, % TML (% CVCM)	0.11 (0.02)	0.09 (0.00)	0.17 (0.02)	Not Tested	Not Tested	Not Tested	ASTM E595
Shelf Life, months from date of shipment	24	24	24	24	24	24	-

* Embossing adds 1.1 mils

**Parker Chomerics internal test procedure

Ordering Information

Refer to Tables 2 and 3. All CHO-FOIL tapes are available in standard 18 yard (16.5 m) or 36 yard (32.9m) rolls or die-cut custom configurations. Replace XX with 18 or 36 for roll length in yards. See table 3 for the code for WWWW. Contact Parker Chomerics Applications Engineering for assistance with a custom configuration.

Table 2 - Part Numbering

Part Number	Foil Option	Adhesive Type	Maximum Roll Width
CCJ-XX-201-WWWW	Aluminum	Electrically Conductive Acrylic	24 (609.6 mm)
CAD-XX-201-WWWW	Aluminum	Electrically Conductive Acrylic (Double Sided)	24 (609.6 mm)
CCK-XX-101-WWWW	Tin-Plated Copper 1 oz	Electrically Conductive Acrylic	12 (304.8 mm)
CCKE-XX-101-WWWW	Tin-Plated Copper 1 oz Embossed	Electrically Conductive Acrylic	24 (609.6 mm)
CCH-XX-101-WWWW	RA Copper 1 oz	Electrically Conductive Acrylic	24 (609.6 mm)
CCD-XX-101-WWWW	RA Copper 1 oz	Electrically Conductive Acrylic (Double Sided)	12 (304.8 mm)
CCH-XX-301-WWWW	RA Copper 1 oz	Non-Conductive Acrylic	24 (609.6 mm)
CCE-XX-101-WWWW	RA Copper 1 oz Embossed	Electrically Conductive Acrylic	24 (609.6 mm)

Table 3 - Length and Width Options

Length Replace XX	Width Replace WWWW
18 = 18 Yard (16.5 m) Roll	0050 = 0.5 in (12.7 mm) 0100 = 1.0 in (25.4 mm)
36 = 36 Yard (32.9 m) Roll	0200 = 2.0 in (50.8 mm) 0300 = 3.0 in (76.2 mm) 0400 = 4.0 in (103 mm)

CHO-FOIL[®] – Product Information

Table 4 – Performance Test Data

Test	Test Data							Test Method
Part Number Prefix	CCH	CCE	CCJ	CCK	CCD	CAD	CFT	
Pre-Bake								
Initial Surface Resistivity, milliohms*	<2	<2	<2	<2	N/A	N/A	<100	CHO-TP-57***
Initial Through Resistivity, milliohms*	<3	<3	<35	<2	<15****	<100****	<100	
Initial Peel Strength, oz/in [ppi] (N/m)	44.8 [2.8] (490)	44.8 [2.8] (490)	51.2 [3.2] (560)	46.4 [2.9] (508)	48 [3] (525)	70.4 [4.4] (710)	44.8 [2.8] (40)	ASTM-D1000
Initial Taber Abrasion Surface Resistivity, milliohms	<6	<3	<6	<9	N/A	N/A	<100	CHO-TP-57***
Heat Aging (185°F [85°C] @ 168 hrs)								
Surface Resistivity, milliohms*	<10	<2	<20	<2	N/A	N/A	<100	CHO-TP-57***
Through Resistivity, milliohms*	<16	<3	<22	<2	<7	<60	<150	
Peel Strength, oz/in [ppi] (N/m)**	57.6 [3.6] (630)	62.4 [3.9] (683)	76.8 [8] (840)	67.2 [4.2] (735)	73.6 [4.6] (805)	78.4 [4.8] (840)	59.2 [3.7] (648)	ASTM-D1000
Heat Aging (250°F [121°C] @ 168 hrs)								
Surface Resistivity, milliohms*	<10	<3	<20	<2	N/A	N/A	<100	CHO-TP-57***
Through Resistivity, milliohms*	<70	<3	<23	<2	<3****	<150****	<150	
Peel Strength, oz/in [ppi] (N/m)**	57.6 [3.6] (630)	59.2 [3.7] (648)	75.2 [4.7] (823)	51.2 [3.2] (560)	70.4 [4.4] (770)	84.8 [5.3] (928)	43.2 [2.7] (473)	ASTM-D1000
Heat + Humidity Aging (185°F [85°C] @ 168 hrs @ 95% RH)								
Surface Resistivity, milliohms*	N/A	N/A	N/A	<2	N/A	N/A	<100	CHO-TP-57***
Through Resistivity, milliohms*	N/A	N/A	N/A	<2	<115****	<150****	<150	
Peel Strength, oz/in [ppi] (N/m)**	N/A	N/A	N/A	78.4 [4.9] (858)	78.4 [4.9] (858)	84.8 [5.3] (928)	46.4 [2.9] (508)	ASTM-D1000
Salt Fog Corrosion @ 168 hrs								
Surface Resistivity, milliohms*	N/A	N/A	N/A	<2	N/A	N/A	<100	CHO-TP-57***
Through Resistivity, milliohms*	N/A	N/A	N/A	<2	<275****	<600****	<1000	
Peel Strength, oz/in [ppi] (N/m)**	N/A	N/A	N/A	76.8 [4.8] (840)	62.4 [3.9] (683)	80 [5] (875)	33.6 [2.1] (368)	ASTM-D1000
Taber Abrasion, 500 gramweight, CS-10 wheel @ 500 cycles								
Surface Resistivity, milliohms*	<3	<5	<2	<6	N/A	N/A	<175	-

N/A = Not Applicable

* All measurements of surface resistivity made at ambient temperature with tapes mounted on tinned copper substrate, except for taber abrasion where a plastic substrate was used.

** 90° peel strength tests were done on an Instron at 2 inches per minute with tapes on a 2024 aluminum substrate.

*** CHO-TP-57 available from Parker Chomerics on request.

**** Through resistivity measurements of double sided adhesive tapes done with tapes flanged between 2024 aluminum substrates.

NOTE: The above table represents actual experimental test data taken according to Parker Chomerics internal test procedures. This data differs from Table 1 due to differences in test methods.

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