

EMC Foil Tape

CONDUCTIVE FOIL TAPE WITH CONDUCTIVE ADHESIVE

GENERAL DESCRIPTION

TECKNIT® EMC FOIL TAPE consists of copper or aluminum foil backed with conductive acrylic adhesive on one side. The adhesive is a pressure-sensitive type consisting of a uniform dispersion of conductive particles.

APPLICATION INFORMATION

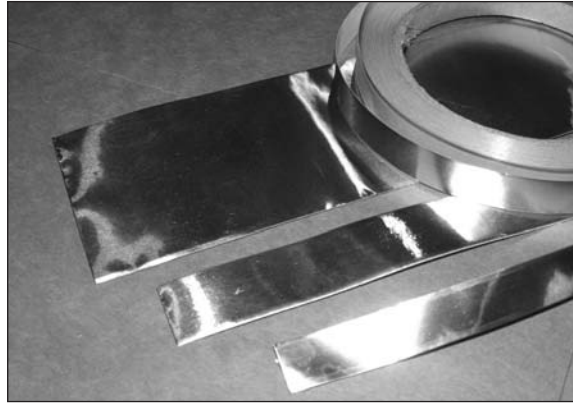
- Sealing of seams on EMI shielding rooms, enclosures and electronic equipment.
- Shielding of cables by wrapping.
- Provides a reliable ground surface.
- Static discharge drain.
- Practical multi-purpose repair material.

STANDARD PART NUMBER DESIGNATION

	WIDTH	PART NUMBER
Copper	0.5 Inch	23-60005
	1.0 Inch	23-60010
	2.0 Inch	23-60020
	4.0 Inch	23-60040
Aluminum	0.5 Inch	23-70005
	1.0 Inch	23-70010
	2.0 Inch	23-70020
	4.0 Inch	23-70040

ORDERING INFORMATION

TECKNIT EMC FOIL TAPE is available in standard widths of .5", 1.0", 2.0" and 4.0" in standard 36 yard lengths. Widths up to 24", different lengths are available on special order.



SPECIFICATIONS

MATERIAL DESCRIPTION

- **Foil**
Copper* .0014 inch. (1 oz.)
Aluminum .002 inch.
- **Thickness**
Copper .0029 inch $\pm 10\%$.
Aluminum .0035 inch $\pm 10\%$.
- **Interliner:** Polyethylene Coated Paper.
- **Adhesive**
Conductive Acrylic .0015 inch $\pm 10\%$.

PERFORMANCE CHARACTERISTICS

- **Peel Strength (ASTM D-1000)**
Copper 40 oz./inch of width.
Aluminum 35 oz./inch of width.
- **Tensile Strength (ASTM D-1000)**
Copper 35 lb./inch of width.
Aluminum 20 lb./inch of width.
- **Conductivity through Adhesive**
Copper 0.010 ohms/in.2
Aluminum 0.010 ohms/in.2
- **Shielding Effectiveness:** 10MHz to 1GHz
Copper 60 dB
Aluminum 55 dB
- **Temperature Range**
-131°F to +311°F [-55°C to +155°C]

*Available Tinned

TECKNIT

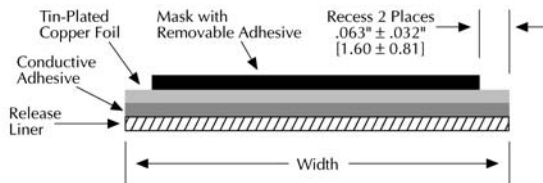
TeckMask™

EMI FOIL TAPE WITH EASY PEEL MASK

U.S. Customary
[SI Metric]

GENERAL DESCRIPTION

Tecknit's TECKMASK tape has been designed to withstand the rigorous powder painting processes currently used in sheet metal cabinet manufacturing. TECKMASK tape also provides a conductive, non-corroding surface, thus eliminating expensive plating, hand masking and chromate conversion coating of enclosure flanges prior to painting. After painting and baking, the high temperature recessed paint mask is removed, leaving a clean conductive surface with a smooth paint edge.



APPLICATION INFORMATION

TECKMASK tape is recommended for use in areas where a conductive path is required, typically, the interface between the cabinet frame and an EMI gasket.

TECKMASK consists of an easily removable 2-mil nylon protective film mask over 2 oz. tin-plated copper foil and backed with an aggressive conductive pressure sensitive adhesive. The foil tape is a special electrolytic grade of premium, dead soft, zero temper, high tensile copper that is tin clad on both sides. The high temperature nylon film mask is backed with a thin film of removable adhesive which has been formulated to leave no trace of adhesive or residue upon removal of the film from the foil tape.

EMI SHIELDING PERFORMANCE

TECKMASK tape shielding effectiveness has been tested in accordance with MIL-STD-285. Typical values are given below.

H-FIELD 100 kHz	E-FIELD 10 MHz	PLANE WAVE 1 GHz
dB	dB	dB
141	114.5	116



SPECIFICATIONS

MATERIAL DESCRIPTION

- **Foil:**
Tinned Copper
Thickness .0028"
Tin plating per MIL-T-10727
- **Mask:**
Nylon
Thickness: .002"
Color: Light green
- **Total Thickness:** .0077"
- **Temperature Range:** -10°F to 400°F
[-23°C to 204°]
- **Adhesion:**
Film to Foil: 20 oz/in.
Foil to Substrate: 70 oz/inch width
- **Shear:** 2.2 psi (PSTC #7)
- **Electrical Resistance:** .002 ohm/sq. inch
- **Surface Resistivity:** .010 ohm
- **Release Liner:** 65# Kraft.
- **Standard Widths:** .430" to 1.5"
- **Standard Lengths:** 18 yards
- **Custom lengths and widths:** consult factory



APPLICATION GUIDELINES

A. SURFACE PREPARATION:

Teckmask tape should be applied to a clean dry Surface (Figure 1). If the surface is contaminated, clean with a rag dipped in methylethyl ketone. Use a rubber roller or rubber squeegee and moderate pressure (4-10 lbs) to ensure proper adhesion of Teckmask tape to cabinet. After applying, allow Teckmask Tape to stand one hour at room temperature to develop adhesion sufficient to withstand normal processing and handling. Full adhesion is developed after 24 hours.

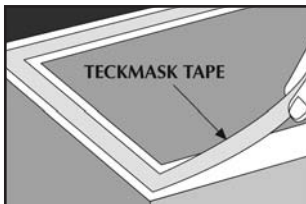


Figure 1.

B. APPLICATION INSTRUCTIONS:

1. Paint the cabinet using conventional methods (Figure 2).

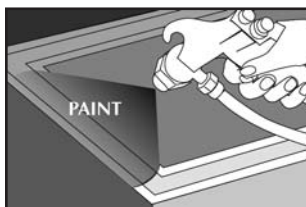


Figure 2.

2. BAKE. Recommended baking schedule for optimum performance of Teckmask Tape is 5 to 60 minutes at 225° to 350°F (Figure 3).

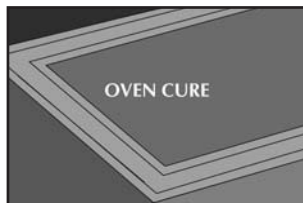


Figure 3.

3. Allow painted area to cool to ambient temperature before removing mask portion of tape (Figure 4). Mask should be removed immediately after cooling as it will reestablish adhesion within 24 to 48 hours. If the mask does regain adhesion it can be removed by reheating to the recommended bake schedule listed above.

4. To minimize the chance of lifting the metal tape, the mask should be peeled back at an angle as close to 180° as possible. If the tape shows signs of lifting during mask removal, it can be rolled back down, using moderate pressure, with a rubber roller or squeegee.

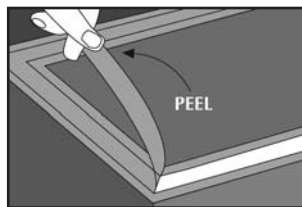


Figure 4.

ORDERING INFORMATION

Standard TECKMASK Tape is available in 18 yard length rolls. Consult factory for custom length, and/or width requirements. TECKMASK tape is available with a non-recessed mask.

PART NUMBERS

PART NUMBER	WIDTH
23-61004	.43" [10.92]
23-61005	.50" [12.70]
23-61006	.625" [15.88]
23-61007	.75" [19.05]
23-61010	1.0" [25.40]
23-61015	1.5" [38.10]

TECKMASK