Application Note

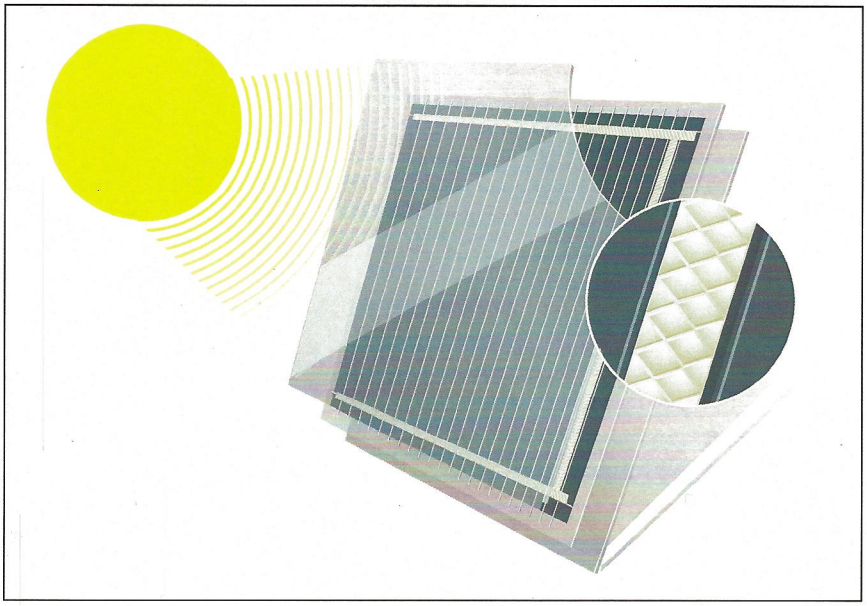
Photovoltaic (PV) Panel Using Charge Carrying Tape (CCK)

Parker Chomerics

Customer Value Proposition:

CCK foil tape offers excellent charge carrying properties for photovoltaic cells. Customer benefits include:

1. Reduced assembly complexity compared to dispense and cure solutions, lowering installation costs.
2. Excellent current carrying capacity provides long-term reliability, reducing rework costs and field failures.
3. High adhesion acrylic adhesive provides a strong bond to panel surface, further providing long-term reliability.
4. Tin-plated foil provides for solderability and enhanced long-term stability via corrosion resistance.

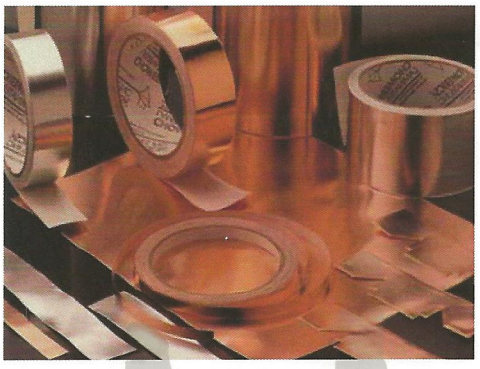


Applications:

CCK foil tape is used in any application where excellent electrical conductivity is required to carry current from a surface, through the adhesive, and along the foil substrate. Tin plating is offered for soldering and anti-corrosion properties. Common applications include:

1. Charge collection / carrying
2. Grounding tape / tabs
3. ESD Protection
4. EMI Shielding

Properties	Typical Values
Foil Type	Tin-plated, dead-soft copper
Foil Thickness (mils)	1.4
Adhesive Thickness (mils)	1
Total Thickness (mils)	2.4
Z-Axis Thermal Resistance (mOhms)	3 (MIL-STD-202C)
Shielding Effectiveness	80dB-95dB @ 30MHz-18GHz (IEEE-STD-299)
Peel Adhesion (oz / in)	>40 attached to aluminum



Notes:

1. CCKE is embossed. Adds approximately 1.1 mils to total thickness.
2. Standard rolls available from ¼" to 24" wide. Standard length is 36 yards.
3. Part numbers for 36 yard rolls: CCK or CCKE-36-101-ZZZZ where ZZZZ = 0025 for ¼", 0050 for ½", 0100 for 1", 2400 for 24", etc.
4. Other lengths available upon request. Contact Chomerics at 781-939-4850.
5. See Chomerics CHO-FOIL and CHO-FAB data sheet for detailed reliability data.

www.chomerics.com
www.parker.com/chomerics

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