

ELECTROKLEAR™ OCF SERIES™ TRANSPARENT CONDUCTIVE FILMS

DyneTEC precision roll-to-roll coatings include a variety of transparent conductive coatings for EMI/RFI shielding of electronic displays and touch screens, flexible electronics, photovoltaics, and transparent heater applications. Transparent conductive oxides such as indium tin oxide (ITO) and metals such as gold or silver are deposited via high vacuum magnetron sputtering onto flexible optical substrates including polyester, acrylic, triacetate, polycarbonate, and glass via DyneTEC's precision roll-to-roll coating processes.

ElectroKlear[™] brand coatings are available on flexible films under DyneTEC's OCF Series[™] Optical Conductive Films product family. OCF Series[™] films are made in a wide range of resistivities and configurations as shown below:



Typical OCF Series[™] product features are as follows:

- Transparent conductive coatings (single or multi-layer) on an optical quality PET (polyester) based film; high visible light transmission with low photopic reflection. Coatings can be index matched to air (n = 1.0) or lamination (n = 1.5).
- Common uses:
 - EMI/RFI shielding for electronic displays, touch screens, enclosures
 - Transparent heaters
 - Optical static dissipation filters
 - Touch screen components
 - Solar reflector/IR transmission reduction for solar loading protection
- A wide variety of product configurations including rolls, sheets, and precision cut-to-size
- Optical pressure-sensitive adhesive can be applied to non-conductive surface
- Conductive coatings can be deposited over hard coatings (e.g., antiglare or gloss hard coating) or directly on 0.007" (187 microns) thick PET. Custom thicknesses and other substrates are available subject to minimum run charges.
- Protective masking can be applied to front and/or rear surfaces



EMI Attenuation Data

Frequency	OCF-3	OCF-12	OCF-22
50 MHz (E field)	-	44 dB	40 dB
100 MHz (E field)	39 dB	34 dB	29 dB
1 GHz (Plane Wave)	32 dB	-	20 dB
27 GHz (Plane Wave)	31 dB	-	-

ElectroKlear™ OCF Series™ Product Configurations

Material	Available Thickness	Configuration	Nominal %T	Materials	Nominal Resistance, Ω/sq.	IR Blocking Performance
OCF-3	0.005″	R, S, C	65%	TCO & Metals	2.7	Excellent
OCF-12	0.005" to 0.007"	R, S, C	80%	TCO & Metals	10	Very Good
OCF-22	0.005″ to 0.007″	R, S, C	85%	TCO & Metals	20	Average
OCF-50	0.007″	R, S, C	85%	TCO	45	Average
OCF-80	0.007″	R, S, C	80%	тсо	70	Low
OCF-250	0.007″	R, S, C	89%	TCO	230	Low

OCF is DyneTEC's designation for vacuum deposited visually transparent conductive coatings on flexible optical film. The conductive film coatings are constructed in two formats: transparent conductive oxides (TCO), and multi-layer coatings of TCO and metallic layers. The product designations include the OCF prefix followed by the maximum resistance, measured in ohms per square. For example, an OCF-22 is a transparent conductive oxide (TCO) which has a maximum resistance of 22 ohms per square. DyneTEC's OCF Series[™], as well as custom coatings, are available on flexible or rigid substrates, as well as complete product solutions.

Configuration Key

R = Roll (1,000 mm, 500 mm, 24", and custom widths) and sold by square foot or square meter

- **S** = sheets (24" x 24" or 500 mm x 500 mm)
- **C** = cut to size

For additional information on transparent conductive films, please contact a DyneTEC applications engineer at 215-933-4171 or email *Sales@dynetec.com*.

