

Test & Measurement  
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Medical

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## Dontech's VCF Series™ Transparent Conductive Films

Dontech manufactures a variety of transparent conductive coatings for EMI shielding, optical scanners, and transparent heater applications. Transparent conductive oxides such as indium tin oxide (ITO) and metals such as gold or silver are deposited via DC magnetron sputtering or ion-enhanced e-beam evaporation on to rigid optical substrates such as glass, acrylic, polycarbonate and ADC.

Those coatings are also available on flexible films such as PET (polyethylene terephthalate) under Dontech's VCF Series™ Transparent Conductive Films product family. Dontech VCF Series™ films are made in a wide range of resistivities and are ideal for low-cost solutions, including optical EMI/RFI shielding of electronic displays and enclosures used in medical, military and industrial applications.

VCF Series™ product features are as follows:

- Transparent conductive coatings (single- or multi-layer) on PET-based (polyester) films; high visible light transmission (> 80%) with low photopic reflection
- Effective EMI/RFI shielding for electronic displays, touch screens, enclosures
- Reduced IR transmission for solar loading protection of displays
- Variety of product configurations available including rolls, sheets, and cut-to-size
- Optical pressure-sensitive adhesive (PSA) can be applied to the uncoated film surface
- Conductive coatings can be deposited over hard coatings (e.g., antiglare or gloss) or directly on PET
- Protective maskings can be applied to front and/or rear surfaces

 **DONTECH**  
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## VCF Series™ Transparent Conductive Films

VCF is Dontech'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 VCF prefix followed by the maximum resistance, measured in ohms per square. For example, a VCF-27 is a transparent conductive oxide (TCO) which has a maximum resistance of 27 ohms per square. Dontech's VCF Series™ coatings are available for complete product solutions.

### EMI Attenuation Data

Frequency	VCF-12	VCF-30	VCF-27
1 MHz (E field)	–	–	60 dB
50 MHz (E field)	44 dB	40 dB	25 dB
100 MHz (E field)	34 dB	29 dB	27 dB
1 GHz (Plane Wave)	–	–	20 dB

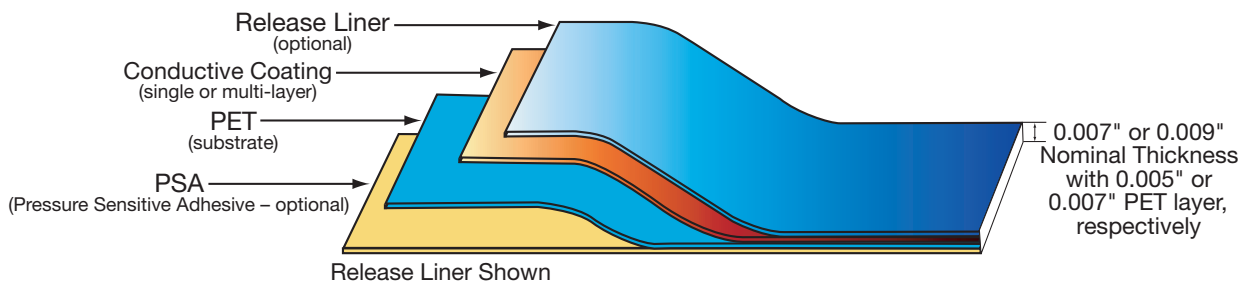
### Product Configurations

Material	Available Thickness	Configuration	Nominal %T	Materials	Nominal Resistance, Ω/sq.	IR Blocking Performance
VCF-3	5 MIL	R, S, C	65%	TCO & Metals	2.5	Excellent
VCF-12	5 or 7 MIL	R, S, C	80%	TCO & Metals	10	Very Good
VCF-27	7 MIL	R, S, C	80%	TCO	25	Average
VCF-30	5 or 7 MIL	R, S, C	85%	TCO & Metals	20	Average
VCF-60	7 MIL	R, S, C	85%	TCO	50	Average
VCF-80	7 MIL	R, S, C	80%	TCO	70	Low
VCF-100	7 MIL	R, S, C	78%	TCO	100	Low

**Configuration Key:**

R = Roll (24", 48" and custom widths) and sold by square foot  
 S = sheets (24" x 24")  
 C = cut to size

### VCF Series™ Films Cross Section



### Company Profile:

Dontech, Inc. is an ISO-9001:2000 certified designer and manufacturer of optical filters, coatings and enhanced display products for medical, military, aerospace and industrial applications. With more than 40,000 square feet of facility space and over 10,000 square feet of clean rooms and optical coating labs, Dontech is well-positioned to support display enhancement projects of any size. Visit us at

[www.dontech.com](http://www.dontech.com)



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