



DIAMOND  
COATINGS



## Electrical Shielding Performance of ITO Datasheet

### APPLICATION NOTE: ELECTRICAL SHIELDING PERFORMANCE OF ITO

Shielding performance for electrical field in the far field case can be easily calculated. Values for a range of resistances and frequencies are shown below.

Table of calculated far field shielding effectiveness (dB)

Sheet resistance (ohms/square)	Frequency (Hz)					
	1MHz	10MHz	100MHz	1GHz	2GHz	18GHz
500	63	43	23			
250	69	49	29			
100	77	57	37	17		
50	83	63	43	23	17	
20	91	71	51	31	25	
10	97	77	57	37	31	
5	103	83	63	43	37	18

#### DIAMOND COATINGS LTD.

Unit 3&4 Sterling Park, Pedmore Road,  
Brierley Hill,  
West Midlands, DY5 1TB  
Tel: +44 (0) 121 550 9430  
Email: [enquiries@diamondcoatings.co.uk](mailto:enquiries@diamondcoatings.co.uk)  
Web: [www.diamondcoatings.co.uk](http://www.diamondcoatings.co.uk)

#### DIAMOND COATINGS INC.

1428 N Horne St Suite 130,  
Gilbert, Arizona,  
85233  
Tel: +1 (480) 999 3456  
Email: [sales@diamondcoatings.com](mailto:sales@diamondcoatings.com)  
Web: [www.diamondcoatings.com](http://www.diamondcoatings.com)

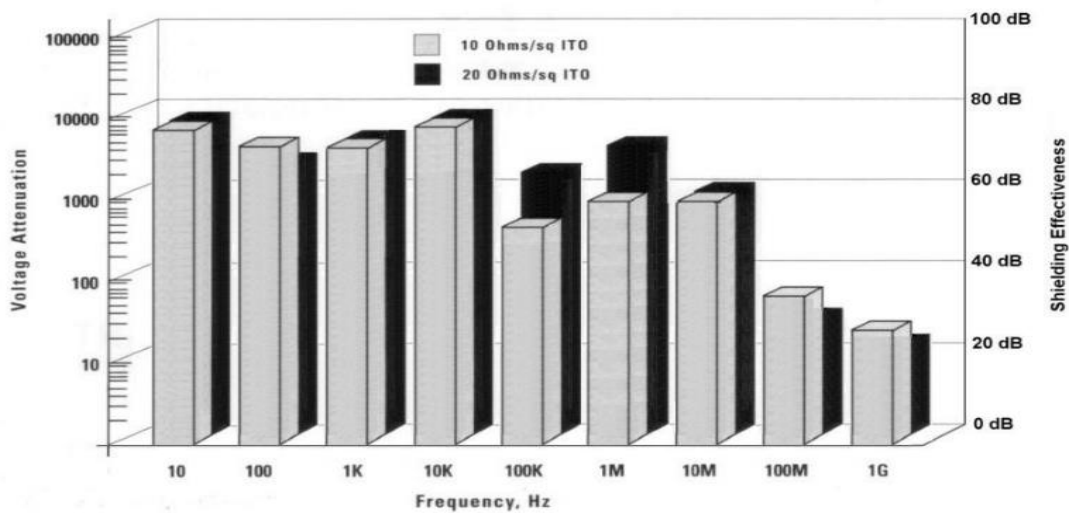


DIAMOND  
COATINGS



## Electrical Shielding Performance of ITO Datasheet

Once the emitting source and the window are close together we have a near field case. This is much more complicated to calculate and depends on many details. Measured values in one instance are shown below



### DIAMOND COATINGS LTD.

Unit 3&4 Sterling Park, Pedmore Road,  
Brierley Hill,  
West Midlands, DY5 1TB  
Tel: +44 (0) 121 550 9430  
Email: [enquiries@diamondcoatings.co.uk](mailto:enquiries@diamondcoatings.co.uk)  
Web: [www.diamondcoatings.co.uk](http://www.diamondcoatings.co.uk)

### DIAMOND COATINGS INC.

1428 N Horne St Suite 130,  
Gilbert, Arizona,  
85233  
Tel: +1 (480) 999 3456  
Email: [sales@diamondcoatings.com](mailto:sales@diamondcoatings.com)  
Web: [www.diamondcoatings.com](http://www.diamondcoatings.com)