



DIAMOND
COATINGS



Diamet Sputtered Metal Coatings Datasheet

INTRODUCTION

DIAMOND COATINGS is a specialist supplier of metal and metal oxide coatings produced by magnetron sputtering. The **DIAMET** range of coatings includes copper, gold and alloys are available on flexible substrates whereas the **DIAMOX** metal oxide coatings, which include indium tin oxide and silicone oxide, are available on both flexible and sheet substrates.

METAL COATINGS AVAILABLE

COPPER

NICKEL

CHROMIUM

TIN

PALLADIUM

GOLD

SILVER

TITANIUM

ALLOYS AVAILABLE

INDIUM TIN OXIDE

NICHROME

STAINLESS STEEL

INCONEL

SUBSTRATES AVAILABLE

POLYESTER

POLYCARBONATE

POLYIMIDE

POLYPROPYLENE

DIAMOND COATINGS LTD.

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APPLICATIONS

DIAMET coatings are supplied to OEM's in the electronics industry and are used in the manufacture of:-

RESISTIVE TOUCH PANELS

EMI/RFI SHIELDING

FLEXIBLE PRINTED CIRCUITS

MEMBRANE SWITCHES

MEDICAL SENSORS

OPTICAL CLEAR HEATERS

BARRIER PRODUCTS

ELECTROLUMINESCENT LAMPS

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PROPERTIES

The performance data and light transmission properties will depend on the type of substrate and coating thickness. Typical properties are summarized in the Table below.

PROPERTIES OF DIAMET AND DIAMOX COATINGS

Coating	Substrate	Coating Thickness A	Optical		Electrical Resistance Ohms/Sq
			*Trans %	Destiny	
Copper	Polyimide	2000+/-200	N/A	N/A	0.2+/-0.05
Silver	Polyester	1000+/-25	N/A	3	0.3+/-0.05
Gold		400	N/A	3	2.2+/-0.3
Palladium	Polyimide	>500	N/A	N/A	<5.0
Nichrome	Polyester	>1000	N/A	3	N/A
ITO	PET	>150	>80		500
ITO	PET	200	>80		300
ITO	PET	>800	>80		20
ITO	PET	>800	>80		10
ITO	PET	>80	>80		<8

**Light Transmission at 550nm*

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QUALITY ASSURANCE

It is the objective of Diamond to produce coatings to high quality standards consistent with commercial product requirements and appropriate standards.

Diamond is registered to ISO 9001:2015 and employs the practice of quality control throughout the manufacturing process.

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