

# Optically Transparent Conducting Film

## Roll Dimensions

	CHARACTERISTIC	TARGET	LIMIT	UNIT	METRIC CONVERSION
	<b>Thickness</b>	0.007	± .0006	Inches	150-175µ-
	<b>Width</b>	specified by customer	± 1/8	Inches	
	<b>Length</b>	specified by customer	200-400	Feet	

## Substrate Quality

	CHARACTERISTIC	SPECIFICATION	UNITS	TEST METHOD
	<b>Total Transmittance</b>	> 85	%	ASTM D 1003
	<b>Haze</b>	< 2.5	%	ASTM D 1003
	<b>Thermal Contraction Machine Direction</b>	< 0.2	%	Unrestrained at 150° C for 30 min.
	<b>Thermal Contraction Transverse Direction</b>	< 0.2	%	Unrestrained at 150° C for 30 min.

## ITO Performance Data Performed as ongoing acceptance tests.

	CHARACTERISTIC	SPECIFICATION	UNITS	TEST METHOD
	<b>Sheet Resistance</b>	34-46	Ω/ sq.	4 point probe
	<b>Uniformity</b> Machine Direction	≤ 10	%	(Ω Max.-Ω Min.)/ (2 X Ω Average)
	<b>Uniformity</b> Transverse Direction	≤ 10	%	(Ω Max.-Ω Min.)/ (2 X Ω Average)
	<b>Total Transmittance</b>	≥ 83	%	ASTM D 1003, Procedure A, Haze-Gard Plus
	<b>ITO Adhesion</b>	100	%	MIL-C-48497A
	<b>Heat Resistance</b>	± 15	%	Change in Ω/ sq., 30 min. @ 150° C.