

## MTS, KEYBOARDS AND FLEXIBLE CIRCUITS - SELECTOR GUIDE

Product	Use With Conductive	Resistivity mohms/sq/mil	Flexibility Resistivity After	Maximum Operating Temperature	Over-print	Silver %	Adhesion Typical Non-Print -Treated	Adhesion Typical Print - Treated	Abrasion Typical > or = To	Curing (Drying) Conditions Typical Minimum Degrees C/Minutes			Comments
										Box Oven	Belt Oven	IR Oven	
<b>CONDUCTORS</b> <i>Silver</i>	<b>Adhesive</b>	<b>Typical Range</b>	<b>1 Crease 180 Deg.</b>	<b>&lt; or = To Degrees C</b>	<b>Carbon Product</b>	<b>By Weight</b>	<b>X-Hatch TapeTest</b>	<b>X-Hatch TapeTest</b>	<b>Pencil Hardness</b>	<b>Box Oven</b>	<b>Belt Oven</b>	<b>IR Oven</b>	
5000	No	8-14	< 50	90	7102	51	5B	5B	3H	120/8	140/1	135/1	Low cost, Vinyl Resin
5021	Yes	13-17	< 40	70	7861D	60	4B	5B	F	120/1	140/1	135/2	Fast/Low Temp.Cure/Flexible
5025	Yes	12-15	< 50	90	7102/5	61	4B	5B	2H	120/5	140/1	135/2	Best Overall Conductor,
5028	Yes	7-12	< 100	90	7102/5	70	4B	5B	2H	120/8	140/2	135/3	High Silver & Conductivity
5029	No	5-10	-	90	7102/5	80	4B	5B	2H	120/5	140/1	135/3	High Conductivity/Smart Cards
9145	No	<30	-	85	7144	60	4B	5B	2H	130/5	140/3	135/3	Adheres To ITO
APP11	Yes	13-17	<50	90	7102/5	60	4B	5B	2H	120/5	140/1	135/2	Silver Migration Resistant

<i>Silver/Carbon</i>	<b>UL105</b>	<b>mohms</b>											
5089	Yes	50-80	< 250	90	7102/5	42	4B	5B	2H	120/5	140/1	135/2	High definition, UL 105C
5524	Yes	25-30	< 200	90	7102/5	55	4B	5B	2H	120/5	140/1	135/2	High definition, UL 105C
APP21	Yes	25-30	<200	90	7102/5	55	4B	5B	2H	120/5	140/1	135/2	Ag Migration Resistant

<i>Carbon</i>	<b>UL105</b>	<b>Ohms</b>			<b>Blend</b>	<b>System</b>							
3571	Yes	10 Gig	-	90	7082	7106M	4B	5B	2H	120/5	140/1	NA	Resin Only, Non-Conductive
7082	Yes	400	-	90	3571	7106M	4B	5B	2H	120/5	140/1	135/2	High-End of Blend System
7102	Yes	25-30	-	90	7106M	5089	4B	5B	2H	120/5	140/1	135/2	Use on print treated PET only
7105	No	20-30	-	90	5000		4B	5B	3H	120/8	140/1	135/1	Blend member for 5000
8144*	No	<120	-	85	7145		4B	5B	H	130/5	140/3	135/3	Adheres To ITO
7861D	No	<60	-	70			3B	4B	H	120/8	140/2	135/3	Overprint

<b>UV DIELECTRICS</b>	<b>UL105</b>	<b>BDV/Mil/DC***</b>								<b>Cure Min*</b>	<b>Cure Typ*</b>	<b>Cure Max*</b>	
5017A	Yes	NA	-	105	-	-	NA	5B	H	300mj	750	1750	Print-Treated PETOnly, Clear
5018/A/G	Yes	>1000	-	105	-	-	5B	5B	H	300	750	1750	Blue/Clear/Green
<b>SOLVENT DIELECTRIC</b>													
5036	Yes	NA	-	90	-	-	4B	5B	H	120/5	140/1	-	Encapsulant/Overprint
8153	No	>500	-	85	-	-	3B	4B	H	130/5	140/3	-	Adheres To ITO

8144 Available late 2005

Electrical, physical and functional properties of UV cured materials will vary with degree of cure. Cure is greatly dependent on type and age of UL lamps and measurements method.