



STABLCOR®

ST10-EP387-0.009		TYPICAL ENGINEERING VALUES			
Property / Condition		Sample Thickness	Value (U.S. Units)	Value (Metric Units)	Test Method
Mechanical					
Peel Strength - Standard profile 1 oz. copper					
	a. After Thermal Stress (Solder Float)	.254 mm (0.010 in)	5 lb/inch minimum	0.9N/mm minimum	IPC-TM-650.2.4.8
	b. At 170C (338F) temp.		5 lb/inch minimum	0.9N/mm minimum	IPC-TM-650.2.4.8 / 2.4.8.2 / 2.4.8.3
	b. At 125C (257F) temp.		5 lb/inch minimum	0.9N/mm minimum	IPC-TM-650.2.4.8 / 2.4.8.2 / 2.4.8.3
	c. After process solutions		5 lb/inch minimum	0.9N/mm minimum	IPC-TM-650.2.4.8
Z - CTE					
	Below Glass Transition	0.76 mm (0.030 in)	46ppm/C		IPC-TM-650.2.4.24
	Above Glass Transition		140ppm/C		IPC-TM-650.2.4.24
Flexural Strength					
	a. Lengthwise Direction	0.76 mm (0.030 in)	120kpsi minimum	800 N/mm ² minimum	IPC-TM-650-2.4.4
	b. Crosswise Direction		120kpsi minimum	800 N/mm ² minimum	IPC-TM-650-2.4.4
Thermal					
Glass Transition Temperature					
	by DSC	.254 mm (0.010 in)	180°C		IPC-TM-650.2.4.25c
	by TMA	.75 mm (0.030 in)	170°C		IPC-TM-650.2.4.25c
Decomposition Temperature (Td) at 5% Wt. loss		.75 mm (0.030 in)	300°C		ASTM D3850
Pressure Vessel		.254 mm (0.010 in)	Level 3		IPC-TM-650.2.6.16
Chemical / Physical					
Moisture Absorption		.75 mm (0.030 in)	0.37%		IPC-TM-650.2.6.2.1
Chemical Resistance		.254 mm (0.010 in)	0.05%		IPC-TM-650.2.3.4.3
Density (g/cc)			1.58		TBD
Flammability			94V-0		UL94
Outgassing (CVCM<0.1% and TML<=1.0%)		.61 mm (0.024 in)	CVCM=0.02%, TML=0.45%		ASTM E-595-93
Water Vapor Regain (%WVR)			0.19%		ASTM E-595-93
Electrical					
Volume Resistivity (UnClad Samples)					
	After 48hrs Laboratory Conditions	.254 mm (0.010 in)	4.12E+09 MegOhms-cm		IPC-TM-650.2.5.17.1
	After Temperature/Humidity		4.61E+09 MegOhms-cm		IPC-TM-650.2.5.17.1
Surface Resistivity (UnClad Samples)					
	After 48hrs Laboratory Conditions	.254 mm (0.010 in)	5.02E+08 MegOhms		IPC-TM-650.2.5.17.1
	After Temperature/Humidity		3.46E+07 MegOhms		IPC-TM-650.2.5.17.1
Electric Strength		.75 mm (0.030 in)	n/a		IPC-TM-650.2.5.6.2; ASTM-D-149
Dielectric Breakdown			n/a		ASTM-D-299
Permittivity at 1Mhz, maximum			n/a		IPC-TM-650.2.5.5.2
Thermal Stress, 10 seconds at 288°C					
	A. Unetched	.75 mm (0.030 in)	pass		IPC-TM-650.2.4.13.1
	B. Etched		pass		IPC-TM-650.2.4.13.1
STANDARD THICKNESS		STANDARD PANEL SIZE		STANDARD COPPER CLADDING	
ST10-EP387:					
0.009" (0.229mm)		18" X 24" (457 X 610 mm)		1/2 OZ. (17uM) Electrodeposited Copper Foil	
0.006" (0.153mm), Ask for a Lead Time				1.0 OZ. (35uM) Electrodeposited Copper Foil	
<p>The Information provided in this data sheet represents general typical values obtained under certain test conditions and is not a specific representations of values for any specific or intended application. The value provided does not constitute a warranty or guarantee of performance of Stablcor® in a particular application or that the results shown on this data sheet will be achieved by a user for a particular purpose. The user should determine the suitability of STABLCOR material for each application. Carbon Core Laminates reserves the right to amend and change the general typical values provided based on different testing conditions and /or techniques. Carbon Core Laminates can be contacted at Ph: (800) 520-2830. To obtain detailed validation results, please send inquires to Engineering@stablcor.com</p>					
STABLCOR® is a registered trademark					