

ThinFlex Corporation

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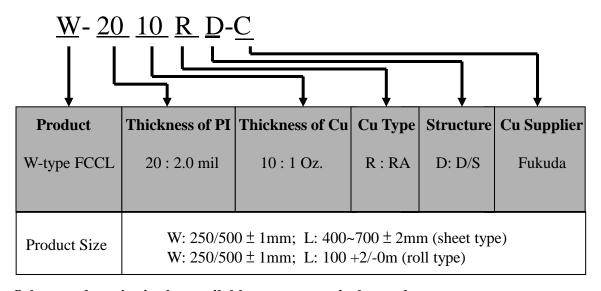
ThinFlex-W22, W-2010RD-C Adhesiveless Double Sided Copper Clad Laminate (Halogen Free)

ThinFlex-W22, W-2010RD-C is an adhesiveless double-sided (D/S) copper clad laminate, using ThinFlex TPI film and laminated with RA copper foil on both sides. The W-2010RD-C adhesiveless D/S composites are designed for a wide variety of flexible circuit applications which require advanced material performance and high reliability.

1. Product Characteristics:

- * Excellent dimensional stability
- * Excellent flexibility
- * Excellen etching capability
- * Excellent flame resistance
- * Excellent chemical resistance
- * Excellent thermal, mechanical, and electrical properties
- * Low moisture absorption

2. Specifications:



* Other product size is also available on customer's demand.

Technical Data Sheet: 202004



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3. Construction:

Copper foil Polyimide film

Copper foil

4. Properties:

Test item		Unit	W-2010RD-	C Test Method
Peel Strength				
As Received		Kgf/cm	≥ 0.6	JIS C 6471 Method B
Solder Float		Kgf/cm	$\geqq 0.6$	JIS C 6471 Method B
After Temp. Cycling		Kgf/cm	≧ 0.6	JIS C 6471 Method B
Chemical Resistance		Kgf/cm	≧ 0.6	JIS C 6471 Method B
Tensile Strength (Base Film)		Kg/mm²	≥25	IPC-TM-650 2.4.19
Elongation (Base Film)		%	≧25	IPC-TM-650 2.4.19
Tensile Modulus (Base Film)		Kg/mm ²	≧600	ASTM D882
Initial Tear Strength (Base Film)		g	≧1250	IPC-TM-650 2.4.16
Propagation Tear Strength (Base Film)		g	≧ 15	IPC-TM-650 2.4.17.1
Flexural Endurance, MIT M.D. T.D.		Cycles Cycles	≥50 ≥50	JIS-C 6471, 0.8mmR, 0.5kg JIS-C 6471, 0.8mmR, 0.5kg
Electrical Properties Surface Resistance		Ω	≧1.0×10 ¹¹	IPC-TM650 2.5.17
Volume Resistance		Ω-cm	$\geq 1.0 \times 10^{12}$	IPC-TM650 2.5.17
Insulation Resistance		Ω	\geq 1.0×10 ⁹	IPC-TM650 2.6.3.2
Dielectric Strength		kV/mil	5.5	ASTM-D149
Dielectric Constant		-	3.3	IPC-TM650 2.5.5.3
Dissipation factor		-	0.01	IPC-TM650 2.5.5.3
Physical and Thermal Pro				
Dimensional Stability	M.D.	%	-0.1~0.1	IPC-TM650 2.2.4C
	T.D.	%	-0.1~0.1	IPC-TM650 2.2.4C
CTE		ppm/° C °C	24 350	ThinFlex ThinFlex
T _g Solder Float	30sec at 288°ℂ (550°F)	-	Pass	IPC-TM650 2.4.13
Moisture Absorption	33300 at 200 ((000 T)	%	1.1	IPC-TM650 2.6.2
Chemical Resistance		-	Pass	IPC-TM650 2.3.2
Thickness tolerance		um	120±10%	ThinFlex
UL Flame Class		_	V-0	UL94

^{*} Above data are typical values, and are not guaranteed values.

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5. Storage:

ThinFlex-W22, W-2010RD-C will meet its shelf-life for at least 12 months after arrival at purchaser's factory with original package, stored at temperature of 25°C or less and relative humidity of 70% or less. The product is no need to be kept in the refrigeration.

Note: The information and data contained in this technical literature is believed to be accurate and is offered in good faith for the benefit of the user. The user should make his own tests to verify the suitability of this product for any application before its use. All data are typical values only and subject to change without notice.

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