

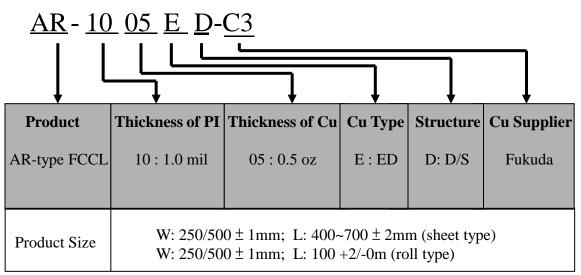
ThinFlex-AR, AR-1005ED-C3 Adhesiveless Double Sided Copper Clad Laminate (Halogen Free)

ThinFlex-AR, AR-1005ED-C3 is an adhesiveless double-sided (D/S) copper clad laminate, using ARISAWA TPI film and laminated with ED copper foil on both sides. The AR-1005ED-C3 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
- * Excellent 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.



ThinFlex Corporation

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3. Construction: 4. Properties:	Copper foil Polyimide fil Copper foil	lm	
Test item	Unit	AR-1005ED-	-C3 Test Method
Peel Strength			
As Received	Kgf/cm	≧0.7	IPC-TM650 2.4.9 B
Solder Float	Kgf/cm	≧0.7	IPC-TM650 2.4.13 B
After Temp. Cycling	Kgf/cm	≧0.7	IPC-TM650 2.4.9
Chemical Resistance	Kgf/cm	≧0.7	IPC-TM650 2.3.2
Tensile Strength (Base Film)	Kg/mm ²	≧24	IPC-TM-650 2.4.19
Elongation (Base Film)	%	≧40	IPC-TM-650 2.4.19
Tensile Modulus (Base Film)	Kg/mm ²	≧450	ASTM D882
Initial Tear Strength (Base Film)	g	≧600	IPC-TM-650 2.4.16
Propagation Tear Strength (Base Film)	g	≧10	IPC-TM-650 2.4.17.1
Flexural Endurance, MIT	Ū.		
M.D.	Cycles	≧600	JIS-C 6471, 0.8mmR, 0.5kg
T.D.	Cycles	≧600	JIS-C 6471, 0.8mmR, 0.5kg
Electrical Properties	·		
Surface Resistance	Ω	~1011	IPC-TM650 2.5.17
Volume Resistance	Ω-cm	~1012	IPC-TM650 2.5.17
Insulation Resistance	Ω	~10 ⁹	IPC-TM650 2.6.3.2
Dielectric Strength	kV/mil	6.5	ASTM-D149
Dielectric Constant (1GHz)	-	3.3	IPC-TM650 2.5.5.3
Dissipation factor (1GHz)	-	0.01	IPC-TM650 2.5.5.3
Physical and Thermal Properties			
M.D. Dimensional Stability	%	-0.1~0.1	IPC-TM650 2.2.4C
1.D.	%	-0.1~0.1	IPC-TM650 2.2.4C
CTE	ppm/°C	26 330	ThinFlex
T _g Solder Float 30sec at 288℃ (550⁰F)	°C	330 Pass	ThinFlex IPC-TM650 2.4.13
Moisture Absorption	- %	Pass 1.1	IPC-TM650 2.4.13
Chemical Resistance	70 -	Pass	IPC-TM650 2.3.2
Thickness tolerance	um	61±10%	ThinFlex
UL Flame Class	un	VTM-0	UL94

GROUP

* Above data are typical values, and are not guaranteed values.

Technical Data Sheet: 201608



5. Storage:

ThinFlex-AR, AR-1005ED-C3 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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