

COPPER FOIL WITH AN EXCELLENT BOND ON A BROAD RANGE OF FLEXIBLE SUBSTRATES FOR 3-LAYER FCCL.

IPC
Grade 3



TYPICAL SUBSTRATES

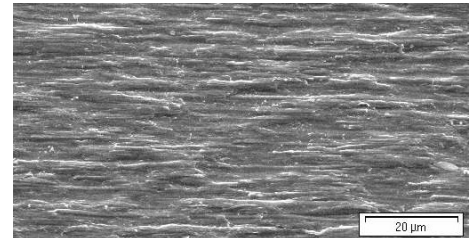
Polyimide and polyester resin systems.



Treated Electrolyte Side

TYPICAL PROCESSES

Lamination on a polyimide or polyester film coated with an adhesive to form a 3-layer flexible copper clad laminate.



Untreated Drum Side

TYPICAL APPLICATIONS

Smartphones, tablets, laptops.

TYPICAL AVERAGE PROPERTIES*

| TZA-FX | | | | | | | | |
|-------------------------------------------------------|--------------------------------|------------------|-----------|------------------|------------------|----------------------------|---------------------------|-------|
| MEASURED PARAMETERS | UNITS | PRODUCT GAUGE | | | | IPC | | |
| Nominal Thickness | µm oz. | 12 3/8 | 18 1/2 | 35 1 | 70 2 | Specification IPC-4562A | Test Method IPC-TM-650 | |
| Area Weight | g/m ² | 106 | 152 | 283 | 577 | 3.4.4 | 2.2.12 | |
| Untreated Side Roughness (Ra) | | ≤ 0.40 | | | | 3.5.6 | 2.2.17 | |
| Treated Side Roughness (Rz) | JIS | µm | 3.3 - 5.8 | 4.1 - 6.7 | 5 - 8.4 | 5.8 - 11 | | - |
| | ISO | | 4 - 7 | 5 - 8 | 6 - 10 | 7 - 13 | | 3.4.5 |
| Tensile Strength Transverse (RT) | MPa (k.Lb/in ²) | ≥ 276 (≥ 40) | | | | 3.5.1 | 2.4.18 | |
| Tensile Strength Transverse (180 °C) | | ≥ 138 (≥ 20) | | | | | | |
| Elongation Transverse (RT) | % | ≥ 3 | ≥ 6 | ≥ 9 | ≥ 12 | 3.5.3 | | |
| Elongation Transverse (180 °C) | | ≥ 2 | | | | | | |
| Peel Strength FR4 halogen-free ⁽¹⁾ (RT) | N/mm (Lb/in) | ≥ 1.0 (≥ 5.7) | | ≥ 1.2 (≥ 6.8) | ≥ 1.3 (≥ 7.4) | 3.5.4 | 2.4.8 | |

⁽¹⁾ Laminate construction with thickness ≥ 0.5 mm

ALTERNATIVE

For 2-layer FCCL (greater flexibility) please consult SR-TZA-B-FX and BF-TZA-FX datasheets.

* ALL OF THIS TECHNICAL INFORMATION HAS BEEN DETERMINED WITH DUE CARE AND THOROUGHNESS. HOWEVER, BECAUSE THE CONDITIONS OF USE AND PROCESS AND APPLICATION TECHNOLOGIES EMPLOYED CAN SUBSTANTIALLY VARY, THE PROVIDED DATA AND FIGURES CAN ONLY SERVE AS NON-BINDING GUIDELINES. THEY DO NOT CONSTITUTE A GUARANTEE THAT THE PURCHASED ITEM WILL POSSESS CERTAIN ATTRIBUTES. FOR THIS REASON, NO LIABILITY WHATSOEVER CAN BE ASSUMED FOR THEM. THE BUYER IS OBLIGED TO CHECK THE SUITABILITY OF ALL SUPPLIED PRODUCTS.