



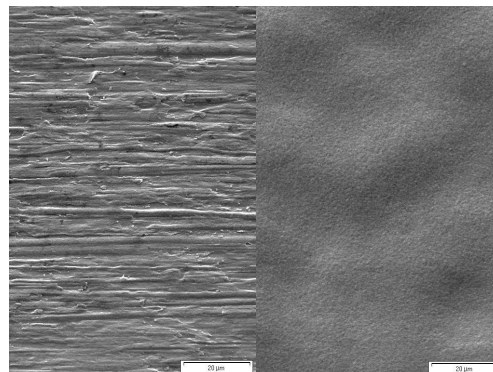
BF-PLAINSTAINPROOF

Technical Characteristics

BF is an ultra-flat electrodeposited copper foil without any additional bonding treatment.

Its exceptionally ultra-low profile makes it very suitable for Lithium-ion batteries where a graphitic carbon layer is bonded to the copper foil in order to form the current collector.

The very thin BF-Plainstainproof foils are widely used in all kind of Lithium-ion batteries for notebooks, PDA's, and mobile phones. It is an ideal solution for large size and high power batteries as required by Hybrid Electrical Vehicles (HEV) and Battery Electrical Cars (BEV), as well as for Smart Grid Battery systems.



drum side / electrolyte side

Typical average properties*

BF-Plainstainproof											
MEASURED PARAMETERS		UNITS	PRODUCT GAUGE					IPC			
Nominal Thickness		μm oz.	6** -	8 -	10 -	12 3/8	14 -	18 1/2	Specification IPC-4562A	Test Method IPC-TM-650	
Area Weight		oz/ft ² g/m ² g/254 in ²	0.17 53 8.7	0.24 72 11.8	0.29 90 14.7	0.34 105 17.2	0.41 125 20.5	0.47 142 23.3	(a)1.2.5, table 1-1 (b)3.4.4 (c)4.6.3	2.2.12	
Drum Side Roughness (Ra)		μm (μ.inch)	≤ 0.35 (≤ 14)					3.5.6		2.2.17	
Drum Side Roughness (Rz)			ISO	≤ 2.5 (≤ 98)					3.4.5		
			JIS	≤ 2.0 (≤ 79)					-		
Electrolyte Side Roughness (Rz)			ISO	≤ 3.0 (≤ 118)					3.4.5		
			JIS	≤ 2.4 (≤ 94)					-		
Tensile Strength Transverse at RT		MPa (k.Lb/in ²)	≥ 207 (≥ 30)					3.5.1		2.4.18	
Tensile Strength Transverse at RT after 1h at 175 °C			≥ 207 (≥ 30)								
Tensile Strength Transverse at 180 °C			≥ 103 (≥ 15)								
Elongation Transverse at RT		%	≥ 3					3.5.3			
Elongation at RT after 1h at 175 °C			≥ 3								
Elongation Transverse at 180 °C			≥ 3								
Resistivity		g/m ²	≤ 0.181	≤ 0.171	≤ 0.170	≤ 0.166	3.8.1.2		2.5.14		
		mm ² /m	≤ 0.0204	≤ 0.0192	≤ 0.0191	≤ 0.0187	-				
Purity		%	≥ 99.9					3.8.1.1		2.3.15	

** pre-series

Circuit Foil Luxembourg

Phone: +(352) 95 75 51 1
Fax: +(352) 95 75 51 249
E-mail: office@circuitfoil.com

Circuit Foil Trading Inc. (USA)

Phone: +(1) 215 887 7255
Fax: +(1) 215 887 6911
E-mail: cftinc@circuitfoil.com

Circuit Foil Asia Pacific Co. Ltd.
(Zhangjiagang Free Trade Zone)

Phone: +(86) 512 58 32 21 82 80 03
Fax: +(86) 512 58 32 21 82 81
E-mail: cfapzjg@circuitfoil.com

Circuit Foil Asia Pacific Ltd. (HK)
Hong Kong Head Office

Phone: +(852) 39 71 05 90
Fax: +(852) 39 71 05 91
E-mail: cfap@circuitfoil.com

* 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.