

Doublethin™

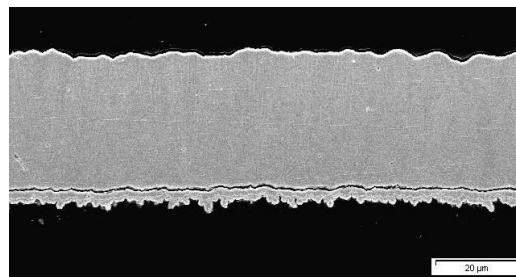
5 to 9 μm carrier supported (DTH-TW & DTH-TWS)

Technical Characteristics

Circuit Foil's **DOUBLETHIN™** products are designed for very fine line and higher density multilayer boards.

The ability to produce ultra-fine line circuitry using conventional subtractive technology is primarily limited by etching capability. As line-to-track spacing fall, the ability to accurately replicate well defined line and pad features, rapidly degrades.

The presence of an ED copper carrier protects the functional layer from any adverse damage and contamination. Typical applications are High Density multilayers and fine line applications.



Cross section of 5/35 μm DTH-TW

Typical average properties*

Doublethin™-TW / -TWS						
MEASURED PARAMETERS		UNITS	PRODUCT GAUGE			
Functional Foil		μm	5	5	7	9
Carrier Foil			35	70	70	70
Treatment Type		-	TW			TWS
Area Weight Functional Foil		g/m²	44 ± 4		65 ± 6	76 ± 7
Roughness Profile Rz	ISO	μm	3.5 - 5.0 (138 - 197)		4.5 - 7.5 (177 - 295)	6.0 - 8.0 (236 - 315)
	JIS	μinch	2.9 - 4.1 (114 - 161)		3.7 - 6.3 (146 - 248)	5.0 - 6.7 (197 - 264)
Preferred Lamination Temperature		°C (°F)	≤ 180 °C (356 °F) ^[2]			≤ 210 °C (410 °F) ^[2]
Laminate Bond on FR-4 ^[1]		N/mm (lb/in)	± 1.7 (± 9.7)		± 1.8 (± 10.3)	± 2.0 (± 11.4)
Laminate Bond on Polyimide ^[1]			-		-	± 1.2 (± 6.9)
Typical Substrates		-	FR-4, FR-5, Filled epoxy			Polyimides, High Tg

^[1] after galvanic reinforcement up to 35 μm

^[2] In case of long lasting post-baking cycles, please contact our Technical Customer Service for advice.

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* 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.