CIC (Copper-Invar-Copper)

CIC is a copper-invar-copper-composite material. It is an Invar-foil with a copper-plating and/or Cu/Zn-Treatment on both sides. CIC composite material is mainly used for special printed circuit boards with ground and power planes and/or metal cores. The low CTE is crucial for aviation and special applications.

Standard specification:

Composition of material:

Copper layer: Oxygenfree copper, SE-Cu acc. To EN 1652
99.95% Cu incl. Ag; approx. 0.003% P

Core layer: FeNi36; Nickel / Iron Alloy (Invar);
36.5% Ni; 63.07% Fe; 0.004% C; 0.01% Si; 0.002% P; 0.0009% S

Layer ratio: standard: 12.5 / 75 / 12.5 in volume percentage; others on request

Treatment: single sided or double-sided Cu-Treatment or Cu/Cz-Treatment

Material designation: IPC-CF-152/2 CIC W 6 D

Details: please see our technical data sheet CIC

Strip thickness: 0.050 mm – 300 mm (0.002” – 0.012”)
standard: 0.150 mm (0.006”) ; others on request

Width: 10 mm – 610 mm (0.4” – 24.0”) (wider on request)
CIC foil is produced on coils. Most dimensions are also available as sheet, cut to length, not levelled. Narrow dimensions, mainly in widths below 8mm (0.32") are available mainly on traverse wound spools, or with limitations on pancake.

**Lost sizes:**

We supply, quick and flexible, small lots for R&D as well as big lots up to complete container lots.

**Advantages of Schlenk's CIC-composite foils:**

- uniform low profile treatment guarantees short etching times
- very low Coefficient of thermal expansion (CTE) in x-, y- and z-axis.
- complete production process based on inhouse know-how
- standard thickness available from stock

**Applications:**

Special Printed Circuits; core ground and power planes; Heat sinks