

JD2HD/F JTCHD

Copper Foils for Non-Dynamic Flex, Grade 2 |

- High ductility for consumer electronics and automotive applications
- Good adhesion to polyester, PET, FEP, PEN and PI Films
- Low profile structure for flex circuitry with fine lines
- Alternative to rolled copper foils

Overview

JD2HD/F, Grade 2

successfully meets laminate requirements for a broad range of flexible substrates. Applications that utilize the benefits of FPCs continue to grow in the consumer electronics and automotive industries.

GOULD's grade 2 foils offer the extra ductility to prevent foil cracking during FPC usage. Both foils get higher laminate peel strength compared to rolled foils because of the fine nodular,

oxidic copper treatment (zinc-free) and chemical bond.

JD2F is optimized for flex cycle performance.

JTCHD

is widely used for HDI packages like TAB, BGA or CSP, for polyimide films and thin epoxy flexible laminates.

Advantages

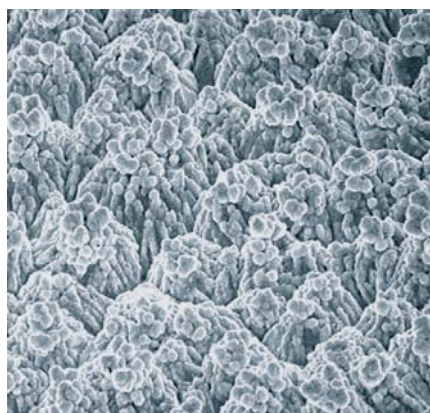
■ High Ductility

This grade 2 copper foil is proven to have suitable ductility for consumer and automotive applications that require flexibility during installation and use. Compared to rolled and annealed copper foils, this ED copper offers very similar properties in both, machine and transverse direction.

■ Good Adhesion to Substrates

The fine nodular D2 treatment (oxidic copper) and the acclaimed TC treatment (more metallic copper, brass thermal barrier) increase mechanical adhesion through increased surface area for excellent bonding to adhesives and laminating resins. A silane treatment applied to the matte side of JTCHD foil maximizes bond strength to various substrates. The copper surface is easily cleaned by common chemical processes.

Specifications

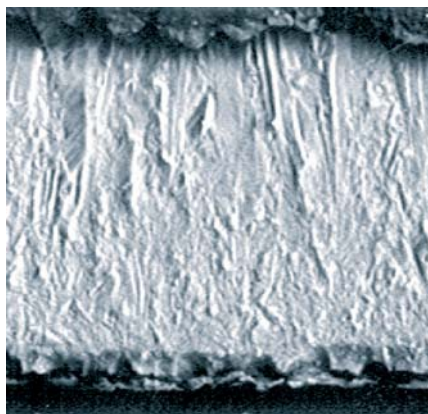
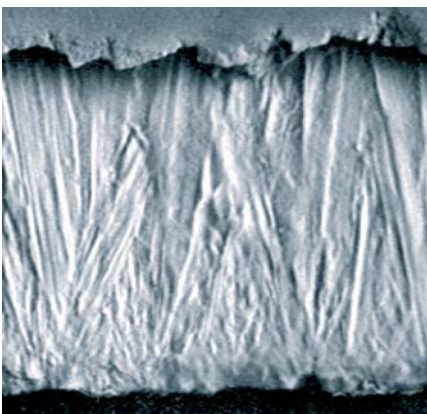


JD2HD (copper oxide treatment) and JTCHD (brass treatment, barrier layer), both 35 μm

Typical mechanical properties:

Property	Unit	HD-Grade 2			F-Grade 2		
		18 µm	35 µm	70 µm	18 µm	35 µm	70 µm
Area weight	g/m ²	155	285	570	155	285	570
Elongation RT	%	6...14	16...22	20...28	7...15	16...24	20...28
Flex ¹⁾	cycl.	> 300	> 80	> 30	> 400	> 100	> 40
Bulge Height	mils	--	150...170	--	--	180...220	--
Fatigue Ductility	%	35	40	--	40	45	--
Rz, matte side	µm	4...7	5...8	8...13	3...5.5	5...6.5	7...10

¹⁾ Mandrel 2 mm, 84 g



Cross-sections of grade 2 foils, HD and F (35 µm)

Supply

JD2HD/F and JTCHD foils are provided in a variety of widths. All foils exceed requirements of grade 2 as specified by IPC-4562.

Product is supplied on cardboard cores with an ID of ~ 79 mm (3 1/8") or 152 mm (6").

GOULD Electronics is part of the Nikko Materials group. The company is a leading supplier of materials to the electronics industry.



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