ZVEI recommended design rules for microvias

(the user is responsible for implementation)

ZVEI: Die Elektroindustrie

Description	Standard	High end
Copper foil thickness	9 µm	9 µm
Final copper thickness plating *(i-h)*	34 µm (+15 µm/ -5 µm)	34 µm (+15 µm/ -5 µm)
Annular ring (microvias)	> 100 µm	> 75 µm
Thickness of copper plating (unfilled) (e)	IPC class 2 > 12 µm; IPC class 3 > 12 µm	> 20 µm for PTFE
Maximum dimple	20 – 25 µm	

Possible variations

Hole diameter *f* [µm]	Hole depth *h* [µm]	Prepreg	Aspect ratio (max. 0.85:1)	Final diameter (*f*-2*e*) [µm]
100	63	1 x 1080	0.63:1	50 - 70
140	100	2 x 106	0.71:1	90 - 110
170	100	2 x 106	0.59:1	120 - 140