



## IPC-2222 Errata Information

(These corrections should be made in user's hardcopies in accordance with the company's documented control program)

Sections are in **red**, instructional text in **green**, and corrections in **black**.

### 4.3.7.5 Thickness Class Tolerance Designation

**Replace text with:**

**4.3.7.5 Thickness Class Tolerance Designation** The designation "K" is a thickness class tolerance specification for the base laminate. The class of thickness tolerance for laminate base material per IPC-4101 is identified by one of the following designations; A, B, C, D, K, L, M, or X (as agreed upon between user and supplier). It should be noted that material certified to tighter tolerances can be used to meet lower tolerance requirements without being recertified to that class (e.g., Class C material can be substituted for Class B). Laminate material as manufactured has what is known as "working area" as applied to the thickness tolerance. The thickness outside the "working area" of the laminate sheet or cut-to-size panel supplied by the supplier **shall** not vary from the nominal by a value >125% of the specified tolerance. The "working area" tolerance is listed in Table 4-7 according to standard laminate thickness range and tolerance classification.

- If the board is going to mount on standoffs and/or the thickness is of no importance, Class A or K should be specified.
- If the board requires a tight tolerance in the base-to-base overall thickness, e.g., to mechanically attach to an edge connector, Class B/L or even Class C/M should be considered.
- The finished board thickness includes the accumulated tolerances of the nominal laminate thicknesses, prepreg fill, and all the additional plating thicknesses added together.

**Table 4-7 Thickness and Tolerances for Laminates**

Nominal Thickness of Laminate (mm) [in]	Class A/K (mm) [in]	Class B/L (mm) [in]	Class C/M (mm) [in]	Class D (mm) [in]
0.025 to 0.119 [0.0009 to 0.0047]	± 0.025 [± 0.000984]	± 0.018 [± 0.000709]	± 0.013 [± 0.000512]	-0.013 [-0.000512] + 0.025 [+ 0.000984]
0.120 to 0.164 [0.0047 to 0.0065]	± 0.038 [± 0.00150]	± 0.025 [± 0.000984]	± 0.018 [± 0.000709]	-0.018 [-0.000709] + 0.030 [+ 0.00118]
0.165 to 0.299 [0.0065 to 0.0118]	± 0.050 [± 0.00197]	± 0.038 [± 0.00150]	± 0.025 [± 0.000984]	-0.025 [-0.000984] + 0.038 [+ 0.00150]
0.300 to 0.499 [0.0118 to 0.0196]	± 0.064 [± 0.00252]	± 0.050 [± 0.00197]	± 0.038 [± 0.00150]	-0.038 [-0.00150] + 0.050 [+ 0.0197]
0.500 to 0.785 [0.0197 to 0.0309]	± 0.075 [± 0.00295]	± 0.064 [± 0.00252]	± 0.050 [± 0.00197]	-0.050 [-0.0197] + 0.064 [+ 0.00252]
0.786 to 1.039 [0.0309 to 0.04091]	± 0.165 [± 0.006496]	± 0.10 [± 0.00394]	± 0.075 [± 0.00295]	N/A
1.040 to 1.674 [0.04091 to 0.06594]	± 0.190 [± 0.007480]	± 0.13 [± 0.00512]	± 0.075 [± 0.00295]	N/A
1.675 to 2.564 [0.06594 to 0.10094]	± 0.23 [± 0.00906]	± 0.18 [± 0.00709]	± 0.10 [± 0.00394]	N/A
2.565 to 3.579 [0.10094 to 0.14091]	± 0.30 [± 0.0118]	± 0.23 [± 0.00906]	± 0.13 [± 0.00512]	N/A
3.580 to 6.35 [0.14094 to 0.250]	± 0.56 [± 0.0220]	± 0.30 [± 0.0118]	± 0.15 [± 0.00591]	N/A