**The chart below provides the thickness for a single ply (sheet) of each style of Pre-Preg after processing. These are grouped by the weight and type of the internal conductor layer (typical signal and plane layers) that they will be adjacent to (columns A-F). Those that are adjacent to the top and bottom copper layers will use the column designated for these (column G) regardless of the layer type. All plies that are not directly against a conductor layer (use for situations with more than 2 plies in an opening) will use the additional plies values (column H). These values are based on a minimum of 2 plies of pre-preg per opening between foil and cores or between cores.**

**This thickness guide is provided as a guide only. The actual thickness will be affected by the copper distribution within the design as well as within the production panels**

| | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| Pre-Preg Styles | Against core with .5 oz copper and signal traces utilizing 30% of the board area | Against core with .5 oz copper and plane utilizing 70% of the board area | Against core with 1 oz copper and signal traces utilizing 30% of the board area | Against core with 1 oz copper and plane utilizing 70% of the board area | Against core with 2 oz copper and signal traces utilizing 30% of the board area | Against core with 2 oz copper and plane utilizing 70% of the board area | Against the top and bottom copper layers (foil). | Additional plies that are not directly against conductor layers |
| **106** | 1.9 | 2.2 | 1.5 | 2.0 | 0.5 | 1.5 | 2.3 | 2.1 |
| **1080** | 2.6 | 2.8 | 2.1 | 2.6 | 1.1 | 2.2 | 3.0 | 2.7 |
| **2113** | 3.5 | 3.7 | 3.0 | 3.5 | 2.0 | 3.1 | 3.9 | 3.5 |
| **2116** | 4.7 | 4.9 | 4.2 | 4.7 | 3.2 | 4.3 | 5.1 | 4.6 |
| **7628** | 6.5 | 6.8 | 6.0 | 6.5 | 5.0 | 6.1 | 6.9 | 6.2 |

**All thickness values are in mils. (1/1000 inch)**

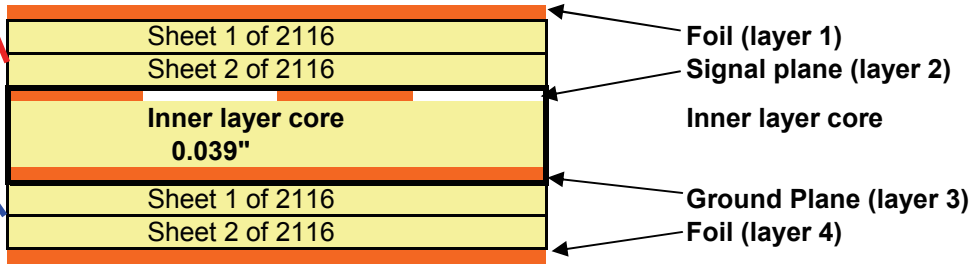
**The dielectric thickness requirements supplied with an order will be interpreted with a minimum, 10% tolerance.**

Thickness

**5.1**
**4.2**

**4.7**
**5.1**

**The stack-up for our typical 0.062" 4 layer with one ground and one signal plane using 1 oz Cu and two sheets of 2116 pre-preg on each side of the core would look like this**




**The spacing between the top layer and the signal core would finish at about 9.3 mils**
**From the ground core to the bottom foil would be approximately 9.8 mils.**
**Add to that the core thickness of .039 & the four layers of 1 ounce Cu at 1.35 each**

| | | |
|---|---|---|
| **Cu** | **4 x 1.35** | **5.4** |
| **Core** | | **39.0** |
| **Prepreg top** | | **9.3** |
| **Prepreg bottom** | | **9.8** |
| | | **63.5 Finish +/- 10%** |