

Mylar® Polyester - Kapton® Polyimide : (Mylar® und Kapton® sind Dupont® trademarks)

- Einseitig mit Kupfer kaschierte Folien
- Doppelseitig mit Kupfer kaschierte Folien
- Multi-level Boards bedruckt mit konduktiven- oder isolierten Pasten
- Galvanischer Prozess für die Oberflächenvergütung oder Durchkontaktierung PTH
- Bestückung mit Komponenten in SMD oder through hole

Material Selection

Polyimide Films	0.5 mil (.0005"), 1 mil (.001"), 2 mils (.002"), 3 mils (.003"), 5 mils (.005")
Thermobond Adhesives	Acrylic/Modified Acrylic, Phenolic Butyral, Modified Epoxy
Copper Foils (rolled-annealed)	0.5 oz. (.0007"), 1 oz. (.0014"), 2 oz. (.0028")
Stiffeners	FR-4, polyimide, metal, or customer supplied
FR-4 in Multi-layer Flex Circuits	Laminated to flex circuit to create rigid flex boards. Typically with vias.
Surface Finish	Solder (hot air leveling or electrolytic plating), Electroless Au and Ni
Other Materials or Finishes	Speak with us concerning your special requirements

Artwork Capabilities and Tolerances

Minimum Trace and Space	.003" / .003" (0.5 oz.) .004" / .004" (1 oz.)
Minimum Annular Ring Over Drill Size	.014"
Required on Artwork to Maintain Tangency	.010" (GERBER required)
Minimum Inner Diameter or Thermal Reliefs	.010" (drill size)
Minimum Space Between Coverlay Openings	.010"
Edge of Coverlay Opening to Trace	.007" (preferred)
Minimum Legend Line Width	.007"

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Drill Capabilities

Smallest Drill Size	.008"
Largest Drill Size	.267"
Smallest Slot Width	.008"

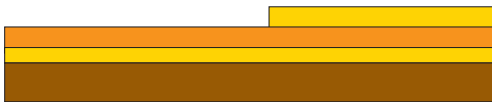
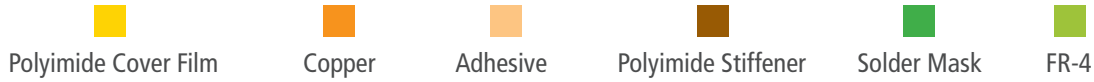
Fabrication Tolerances

Minimum Trace to Route Edge Dimension	+/- .010"
Minimum Route Dimensional Tolerance	+/- .005"
Minimum Tolerance of ZIF Connector to Edge of Flex	+/- .005"
Minimum Feature to Feature Dimensional Tolerance	+/- .005"
Minimum Corner Route Radius	.010" +/- .0005"
Minimum Inside Radius	.006" +/- .0003"

Miscellaneous

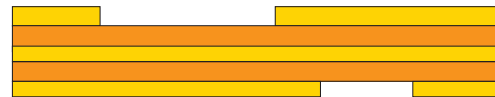
Minimum Layer to Layer Registration	+/- .005"
Drill Position Accuracy	+/- .003"
Average Copper Plating Tolerance (PTH only)	.001" +/- .0005"
Average Solder Plating Thickness	.0003"
Squeeze out of 1 mil Adhesive	.003" +/- .001"
and 2 mil Adhesive	.006" +/- .003"

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Single-sided Construction

A single-layer construction with a polyimide cover film laminated to copper allowing access from one side only.



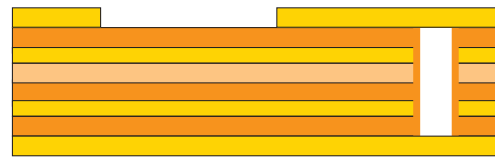
Double-sided Construction

Consists of double-sided copper clad material with top and bottom cover films. The cover films are pre-routed to access copper from both sides using plated thru holes.



Dual Access

Same construction as single-sided flex; however, pre-routed openings are made in the cover film allowing access to both sides of the copper layer.



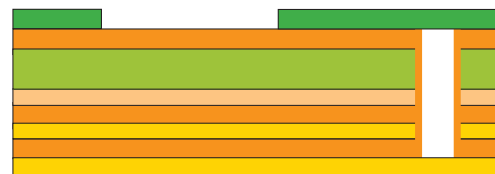
Multi-layer

Consists of multiple layers of single and/or double-sided material laminated with thermoset adhesive. Layers range from 3 to 10 layers.



Wimpy

Consists of a single-sided flex circuit with copper foil and relieved in certain areas to achieve maximum flexibility - especially in the dynamic region. This will have double-sided construction in certain areas and single-sided construction in the dynamic area.



Multi-layered Flex Rigid

A combination of single and/or double-sided flex laminated with thermoset adhesive onto a single and/or double-sided FR-4 clad material. Layers range from 1 to 8 layers in the flex area and up to 10 layers in the rigid area.