Configuration #1
This method is demonstrated on the NAR website in a video made by Dave O'Bryan.
This method uses two layers of fiberglass with one layer of Mylar on the straight section and one layer of tissue in the conical section.

Overlap is approximately 1.5 mm or 1/16 in.

These drawings attempt to clarify some basic questions about FAI body tubes are constructed. The drawings are not to scale.

These drawings are guidelines only, and most modelers find what approaches work for them. There are multiple ways to successfully construct a fiberglass body tube. In general though, modelers will use one or two layers of fiberglass on the straight and conical sections and then use one layer of either Mylar or Japanese tissue.

All drawings indicate nominal 0.5 oz cloth is used, however some modelers will use 0.75 oz. to increase durability.

These drawings all show the 5° degree taper FAI body tube.
Configuration #2
One layer of fiberglass and one layer of tissue

Seams on straight and conical sections should not be aligned to avoid a seem along the entire rocket.

Seams of glass and tissue should not overlap either for the same reason.

Overlaps are all approximately 1.5 mm [1/16 in.]
Overlap can either be straight section extending 0.75 mm [1/32 in.] and conical section extending by the same length or one section can extend the full 1.5 mm [1/16 in.].

Overlap is approximately 1.5 mm or 1/16 in.
Seams on straight and conical sections should not be aligned to avoid a seem along the entire rocket.

Seams of glass and tissue should not overlap either for the same reason.

Overlaps are all approximately 1.5 mm or 1/16 in.

Tissue weave should be at a 45° for the two fiberglass layers.

Overlap is approximately 1.5 mm or 1/16 in.

Configuration #3
One layer of fiberglass on the straight section
One layer of tissue on the straight section
Two layers of fiberglass on the conical section