Subject: Re: Wayne, my bass horn design...
Posted by D Kurfman on Fri, 26 Jul 2002 12:53:51 GMT
View Forum Message <> Reply to Message

Adam,I would spend some time studying stress skin panels used for home construction. You are probably over-estimating the amount of plywood you need. Admittedly, they need most of their strength in compression mode, but the panels can be used as roofs and have trucks put on them. A typical panel is OSB with 4-12 inches of expanded polysterene, extruded polystyrene (much better, ie blueboard)or polyisocyanurate, the high R stuff like the expanding foam. I would bet that for what you are doing, 2" blueboard with 1/4' luan style surface would work. You need very strong adhesion between the wood and the foam using an adhesive that won't attack the foam. Typically, the edges (top and bottom) have a continuous strip of wood. In your case you would probably want to cut inter-locking strips that join at the correct angle. Splines are often driven from top to bottom as part of joining the assembly. The excess foam that has to be removed to do this can be removed via router or hot wire. Such a build up, if you can compress each panel sufficiently, will be much simpler than maniplating expansion foam, in my opinion, though you can fill voids with the foam. Examples are available from panel manufacturers of how the techniques are used for homes. Probably something on the net with some hunting under structural foam panels.