
Building a Linothorax

Building a Linothorax yourself is not that difficult at first glance, the details can be tricky however.

Needed Materials

- Plaster
- Cardboard
- Linen (depends on body measurements)
- Glue (bone glue would be authentic, waterproof white glue also works though)
- Brush for glue application
- Very sharp knife
- Quality scissors
- Appropriate buttons
- Stable Leather thongs

1st Step: Measurements

First you will need to produce a model to work from. This can be either a plaster cast of your upper body or a cardboard template of the finished linothorax. If you want to use plaster either wear an old undershirt or shave, otherwise hair trapped in the plaster will cause you discomfort when taking the cast off.

If you would like to produce a cardboard template wrap the cardboard around your body, make cut-outs for the arms and leave the front and back high enough that you can still move comfortably but without exposing too much of the body. The shoulder flaps can converge in a V-shape over your chest if that allows you to move your arms better.

Also think about the pteryges on the lower rim. They should start at or slightly above hip height so that leg movement isn't obstructed. They should be long enough to cover at least part of your thighs. The linothorax is closed on one side, which one is your choice. There are pictures which show hoplites with openings on the left side, i.e. the shield side. That makes sense as in so far it will be the better protected side even though the other side, the right hand side, would normally face away from the opponent.

The shoulder section gets produced separately. You can either sew it to the body part (hard work!) or glue it. The important part is to leave sufficient space between the shoulder flaps for your neck to prevent chafing. My linothorax has got non-parallel shoulder flaps for that reason. The shoulder flaps get tied down either with a single button in the middle of the chest or at nipple height with two buttons; when cutting the shoulder section you should allow for that. To protect the backside of the neck leave sufficient material separated with two cuts from the shoulder flaps. It will normally stand up straight and offer some protection to the neck.

Now you can determine how much linen you will need. You should aim for 12 to 16 layers, beyond that the armour will become too stiff, below that only offers insufficient protection.

2nd Step: Construction

Use your template or cast to cut your first piece of linen for the body section, then cut another one and glue it on top of the first. Keep repeating that until you're done. Depending on choice of original cut either one or two rows of pteryges.

The following tips should make the construction easier:

- make all necessary cuts on the individual layers before gluing them. Trying to cut several layers at once will be hard (on your tools).
- Punch holes for later sewing work beforehand (buttons, thongs, shoulder section).
- Cut to allow for extra material at the rim that you can fold over later, that way the cross section isn't visible and the rim becomes sturdier. This is especially important for the pteryges.
- Check out the weave structure and try to alternate the direction of layers, this will add toughness.

- If you want to add scales to the midriff section or flank or want to go for some fancy decorative needlework do it on the last layer before you glue it on. Scales should be mounted on the last two layers so they won't tear off as easily.

If you got this far and followed the instructions you should be the proud owner of a sturdy, good looking and authentic piece of body armour

Good luck and success!

3rd Step: Finish

Before you attach the shoulder section you should arm the rim with an extra layer of linen or leather for extra durability. Going for an extra decorative effect is absolutely OK.

If you don't want to stitch a pattern you can still print one (e.g. with potato stamps) while staying authentic. If you think that white is a must you might want to reconsider – on recent finds there are traces of really colourful paint.

Once you have produced and attached all holes, buttons, decorations and rim strengthenings on both sections you can fix the shoulder to the body section. Make sure it is fitted properly; otherwise there is a risk of chafing or it looking lopsided.



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