

Insulated mattress

 low tech & réfugiés



https://wiki.lowtechlab.org/wiki/Matelas_isolant/en

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 Difficulté Facile

 Durée 1,5 heure(s)

 Coût 3 EUR (€)

Description

Building an insulated mattress from salvage life jackets' foams

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Introduction

NEEDED :

With the winter arriving on Lesvos island, it was decisive to propose a solution to the cold infiltration inside the tents. In addition to the wooden pallets, this insulated mattress enables to improve insulation from the ground.

ACCESSIBILITY :

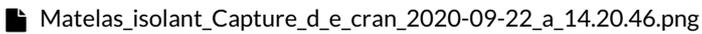
Made from life jackets' foam which can be easily found here, these mattresses permit to diminish the material pollution on the island. The survival blankets and plastic tarpaulin wrapping the mattress, even if not coming from salvage, enable to improve the insulate and waterproof aspects of the mattress against humidity. Facing the emergency of the situation and the time imperative, we could not sew an insulating tarpaulin, which for example could have been made with the inflatable dinghy's fabric stored on the island .

Matériaux

Life jackets foam
2 survival blankets
Plastic tarpaulin (could be replaced by a sewed tarpaulin made from inflatable dinghy's fabric)
Adhesive tape

Outils

Scissors/utility knife
Heating gun
Gloves



Étape 1 - Cut the foam from the life jackets

It consists of removing the foam inside the life jackets using scissors or an utility knife.



Étape 2 - Assemble the foam pieces

To assemble the pieces, use the heating gun to melt a little bit the foam before sticking it on another piece of foam. The goal is to achieve some kind of foam patchwork with the size wanted

For example it is possible to realize a big mattress covering entirely the floor of a tent.



Étape 3 - Roll the foam with survival blankets

To insulate the foam at best, you need to roll it using survival blankets. So as to do that, use adhesive tape to attach the blankets on both sides of the foam.

"NB: It is better to use the aluminium side on top so as to reflect the body's heat."



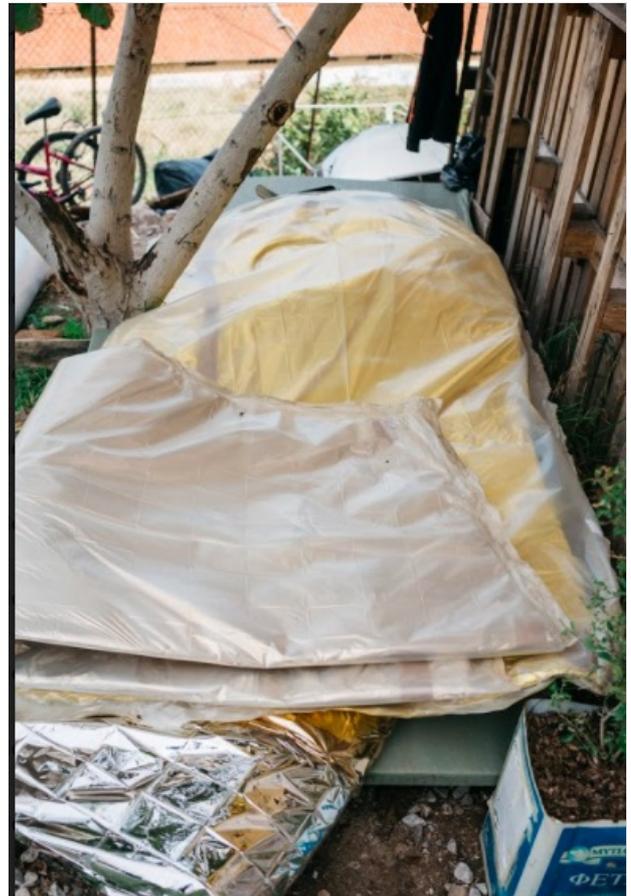
Étape 4 - Cover with a plastic tarpaulin

Cover the whole mattress with a plastic tarpaulin to avoid water and humidity to penetrate inside. Attach it again using adhesive tape.



Étape 5 - Use

The mattress is above the wooden pallet and the tent canvas. Foldable and pretty light, it can be transported easily.



Notes et références

It is also possible to 'stick' the foam pieces together with straps made from cutting plastic bottles (in slices) and using them as some kinds of laces mainting all the pieces together with small holes that you need to do in advance.