

Eco Pack

Abhay Anand
K. Lokith

The PUPIL SAVEETHA ECO School

Objectives

- Land pollution is one of the primary concerns of the world today.
- Plastic being a prominent pollutant must be substituted for an ECO –friendly alternative.
- An ECO- friendly waterproof, cheap material such as ours could be the solution to the problem.



Materials Used

- Corn starch powder
- Beeswax
- Cloth
- Vinegar
- Glycerin
- Water

COST

□ Cloth	- Rs 1.80
□ Beeswax	- Rs 0.70
□ Corn starch	- Rs 0.30
□ Glycerine	- Rs 0.60
□ Vinegar	- Rs 0.50
<hr/>	
□ Total cost	- Rs 3.90



□ **Equivalent cost of Plastic - Rs. 3.50**

Beeswax and cloth

- We rub beeswax on both the sides of the cloth.
- We then melt the beeswax into the cloth, this makes it waterproof.

Why ??

- As we melt the beeswax into the cloth it fills the tiny gaps present in the fabric
- The beeswax makes the cloth waterproof .

Starch coating

- We add
 - 1 tsp of glycerin,
 - 1 tsp of vinegar,
 - 1 tbs of starchfor every 4 tbs of water.

- Heat the solution after mixing to get a transparent semi-solid which we then coat the cloth with.

Why ??

- We use starch as a binding element to hold the cloth together.

Steps “n Stages

Step 1 – Take 1 tbsp Starch



Steps “n Stages

Step 2 – Add 4 tbsp. Water to the Starch



Steps “n Stages

Step 3 – Add 1 tsp. Glycerine to the Solution



Steps “n Stages

Step 4 – Add 1 tsp. Vinegar to the Solution & HEAT!



Steps “n Stages

We now have our Starch based Adhesive !



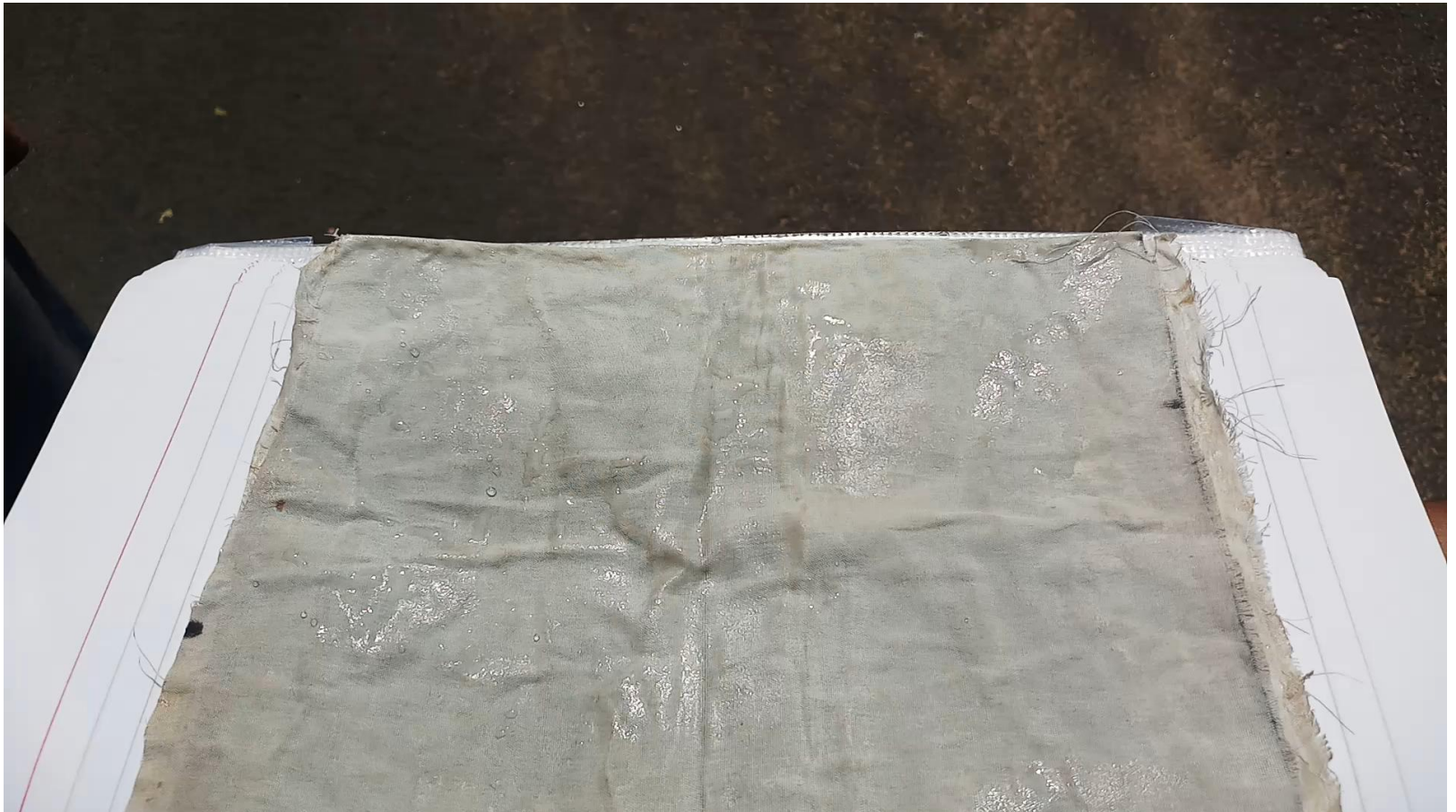
Steps “n Stages

Our Final Product !



Steps “n Stages

Our Final Product & A Demo !



Effects

- It will be a substitute for plastic
- It is biodegradable and the starch is water soluble. This helps as once it is disposed it will bio-degrade in water as well as land. This makes it very eco-friendly.
- It can be used for garbage liners, waterproof packing material, umbrellas, tents...



THANK YOU