

Most Recycled Content

Concept : At the AA we dispose of many model making materials after using them in the trash behind school. Such as Foam,paper, wood scraps and others.

Solution : Recycle as much material as possible within the skip for using around the school. Creating a prototype of a facade (30x30) that can be multiplied and used.

Main material to work with : Paper + White foam

Materials



Acetone

+



White Foam

+



Scrap Wood (for Structure)

Polystyrene

Polystyrene is a polymer made from the monomer styrene, a liquid hydrocarbon that is commercially manufactured from petroleum by the chemical industry.

Material Properties

Pure solid polystyrene is a colorless, hard plastic with limited flexibility. It can be cast into molds with fine detail. Polystyrene can be transparent or can be made to take on various colors. It is economical and is used for producing plastic model assembly kits, license plate frames, plastic cutlery.

Process

When Styrofoam is added to acetone (a common organic solvent) it very rapidly dissolves, making it look like it is disappearing.

The melted plastic can be recovered from the acetone to make hard solid Styrofoam plastic (polystyrene).

Providing a structure

Since the material made is a foam like substance, it needs a reinforced structure to give more of a form and hold the pieces together whilst it sets.

The foam like substance dries hard and forms a water resistant syers so can be used as an external surface for rainy weather.

Experimentation / Process

