

# Plascrete

Teaching  
Resources



Middlesex  
University

Stock no. 233-191

Contents: 1 litre polymer solution & 1kg casting powder.

Plascrete is a hybrid modelling material that combines a fine plaster medium with a polymer binder. Mixed together, the binder and plaster set to a hard condition in just minutes and becomes a hard resistant modelling material within hours – depending on curing conditions. The hardened material can be cut and drilled and finished with a variety of paints and varnishes – including most acrylic media.

## Mixing

Plascrete is mixed in a ratio of 100ml of binder liquid to 100-200grams of powder. The exact proportion of powder determines the viscosity of the material – and this can be judged by trial and error. After casting, there is an exothermic reaction, and the material heats up noticeably. Because of this it should NEVER BE USED TO CAST IN DIRECT CONTACT WITH BODY PARTS SUCH AS HANDS OR FEET.

The material can be mixed in any suitable container and should be stirred rapidly – adding the powder gradually to the liquid. Stir until a creamy consistency has been achieved. The material can be coloured by adding food colouring (e.g., MUTR stock no. 233-181A through 184A).

## Applications

Applications include general purpose modelling, prototyping, reproduction castings, mould making for low-temperature metal casting (not exceeding 80°C), creation of mechanical parts etc.

For prototyping from solid, the material can be cast into solid blocks using a found plastic container or a fabricated box lined with thin polythene film.

For prototyping and modelling by casting, the material can be poured directly into rubber moulds – made, for example, using liquid latex (MUTR stock no. 211-019).

The material can be strengthened by fibre reinforcement by mixing in chopped carbon fibre (MUTR stock no. 233-145A).

Note: the powder and liquid are non-toxic but it is advisable to wear a dust mask to prevent particulate inhalation and gloves in case of allergy.