

4D MODELSHOP PRODUCT INFORMATION SHEET





LATEX

CL00018 - Latex 500ml

CL00002 - Latex 1 Lt

CL00000 - Latex 5Lt

CL00004 - Latex Thickener 100g

CL00007-19 - Latex colourant 150g

CL00026-27 - Latex colorant stretchi

PRODUCT OVERVIEW

Latex Liquid Rubber, is a prevulcanised emulsion which will air dry on the surface of a master to form a highly flexible thin rubber skin.

Extremely versatile this material is widely used in such diverse fields as the manufacture of moulds for garden ornaments to the production of theatrical masks.

Latex is easy to use, is relatively strong, and will give good definition and accuracy of reproduction. Important note: up to 10% shrinkage may occur using latex products.

MOULD MAKING

When considering making a Latex mould a suitable master must be either acquired or created, choice of masters is quite important.

Although virtually any material can be used as a master porous materials such as Plaster of Paris or Clay are the most suitable because the porosity of the material draws out the moisture from the Latex causing it to thicken.

When using non-porous masters you will need to use the Paint On method described later.

Some metals react with Latex resulting in weak moulds.

Plastic type material can be used but may result in reduced mould life. Two mould making techniques are used, the 'Dipping' method or the 'Paint On' method.

If your mould is a large size and liable to distort, a support case/jacket will therefore be needed.

This is usually made of either plaster bandage or glassfibre. No release agent is required when using either of these materials with Latex.

DIPPING

This method is best carried out with porous masters, as the porosity draws moisture from the Latex, thus causing it to thicken on the surface. However, as the moisture enters, it replaces the air already there, thus forcing air bubbles to form in the Latex. To overcome this, re-dip for a few seconds, remove from the Latex and with a brush, stick or palette knife, burst the bubbles as they form and spread the latex over the surface.

As this is being done the latex will quickly turn to a paste that will prevent the release of further air. Re-dip in the Latex and leave for 15-20 minutes, remove and allow any surplus to drip off; a mould thick enough to use should be formed. The Latex should be touch dry in 10 minutes at normal room temperature (20°C) turning from white to a pale beige colour and ready to peel from the master in 2-3 hours.

Drying can be speeded up by gently heating up to about 70°C - 75°C. If the master is dipped for a longer period a thicker coat will be obtained, needing a longer drying time.

In the event of an over thin mould being made with the first dip, thickness can be increased by redipping as soon as possible but within 12 hours to ensure that the Latex bonds to itself.

PAINT ON

Paint a number of layers of Latex with a soft brush allowing a part cure at normal room temperature (20°C) before applying the next layer. If the master is non porous it will tend to 'run' so only very thin layers can be applied.

Keep repeating the process until a sufficient thickness has been built up; for small pieces 7 or 8 coats may be necessary, high spots can be given extra layers. Keep brushes immersed in water between coats. If the master shape is warmed before the initial layers are applied a thicker skin will form and subsequent painting will give a better finished mould.

THICKENER

An optional extra can be added to the Latex if required. It is particularly useful when painting on non porous surfaces and does allow you to build up the thickness of your mould much quicker. By adding enough thickener to make the Latex similar in consistency to emulsion paint, it can be painted on any surface without 'running'.

To avoid air bubbles care must be taken to brush the thickened latex on in thin layers, although after the initial coat has been painted on, it is possible to dip, either in the thickened or unthickened state. While the addition of thickener at the correct rate will not reduce the strength of the cured Latex or have any adverse effect on the finished castings, excessive use will produce a very rigid brittle mould.

The thickened Latex can be used to take moulds from vertical surfaces e.g. wood & stone carvings on walls etc. As a guide about one drop of Latex Thickener will thicken 1g of Latex. This amount should be varied to give the best results on any particular job.

COLOUR & PAINTING

Latex can be coloured using Latex Colourants in a range of intermixable colours with an addition rate of around 5%. Colours will darken considerably on drying, excessive use may also effect the curing of the Latex. For painting on a dried latex surface, a range of intermixable Stretchi paints are available.