



Parting Agents

Parting Agent is a term applied to a product designed to affect a release of a casting from a mould.

The products work by applying a barrier between the mould surface and the product being cast into the mould.

There are a number of release/parting agents each of them has slightly different properties.

Waxes, acrylics and detergent barriers are all used depending on the mould and the product being cast into that mould.

Waxes: These fall into two groups, either "spray on" or a "solid" wax.

Spray Wax:

A group of aerosol based fine spray waxes, each product formulated for a specific application.

The ultra-fine nature of these products makes them ideal for fine detail moulds in particular.

We recommend that even coats be applied and then allowed to dry before applying second and third coats in a different direction – thus you can be sure that the mating surfaces are protected to the best effect.

Formula 5:

Silicone based spray wax formula specifically for silicone moulds, this product prevents silicones from bonding when cast together.

Ideal for multi component silicone moulds, the product will make the individual mould components less likely to bond to each other during the curing process.

Although silicone moulds tend to release pretty freely, it is always wise to spray a coat of Formula 5 over a mould prior to casting to prolong the moulds life.

PUR 400:

This product has been developed to release polyurethane moulds from a pattern, spray the PUR 400 over the pattern before applying the urethane, you can then use the PUR 400 over the mould surface before casting into it – PUR 400 will prolong mould life and aid mould release.

Acrylic Conformal Coating:

Designed to give a protective coating to polished surfaces prior to mouldmaking, particularly suitable for copper, brass and bronze.

This coating can also be used to seal wet clay before building a mould jacket.



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Wax Parting Agent:

Scopas Wax Parting Agent is basically a soft wax paste that can be spread or brushed over a pattern or mould prior to casting.

The wax forms a barrier between the pattern and the mould.

When applied to a mould the wax should be spread thinly and evenly, allowed to dry and then buffed with a soft cloth to form a shiny surface over the mould.

Wax parting agent can be applied in conjunction with PVA to make a 2-stage Parting Agent.

2-stage parting agents typically use Wax and PVA applied in layers across the mould surface to build a uniform layer to protect the mould surface from the casting product.

The PVA solution is layered on top of the Wax Parting Agent to stop prevent the wax barrier from melting with the exothermic heat released as the casting resin cures.

PVA Parting Agents:

These are made from Poly Vinyl Acrylate or Alcohol (PVA) and although similar, have different properties to PVA adhesives (PVA adhesives are Poly Vinyl Acrylates), PVA Parting Agents form a coating over a mould surface to prevent the casting product from bonding to the mould, typically thinner and more suited to more detailed moulds.

There are a number of different PVA Parting Agents, each of them has slightly different properties.

PVA Blue: Is a Poly Vinyl Alcohol which is blue in colour, ideal for sealing plaster moulds because of the contrast in colours.

PVA Clear: Is a Poly Vinyl Alcohol too but it A: is colourless and B: is slightly thinner in consistency than the Blue. This makes the product ideal for casting light colours or plain white, because there is no risk of staining the cast.

Wax and PVA parting agents sometimes leave a residue which can be removed using a 3M pad.



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Other Parting Agents:

Scopas Parting Agent:

A water based product designed for use on plaster moulds, this parting agent is pink in colour and is ideally applied in a single even coat across the mould surfaces.

Place the mould in a warm dry place to allow the parting agent to cure.

The casting product should be poured into the mould as soon as the parting agent is dry.

Completed castings can be immersed in warm water to release the cast from the mould, the parting agent loosens into a "slime" and releases the cast and the remaining parting agent can be washed off using water and a sponge or cloth.

Soft Soap:

Ideal for casting plaster into a plaster mould, Soft Soap works in a similar way to Scopas Parting Agent in that it forms a slightly greasy barrier between the two plaster surfaces and prevents them from bonding.

Made from potassium rather than sodium hydroxide the product is more greasy and more liquid than conventional soap – it is inclined to leave skin very dry and should be washed off as soon as possible to avoid dermatitis.

Apply by first soaking the surface of the plaster mould with water, then mix the Soft Soap with water to thin it down into a brushable liquid, apply in at least two thin even coats over the mould.

When completed the surface should feel slightly greasy to the touch.

When the Soft Soap mixture feels dry across the mould then you are ready to pour the casting product.

To release the casting soak the mould and the cast will release quite easily – any remaining Soft Soap can be washed off sparingly with water and a sponge.



Parting Agents

Many people make their own parting agents too, this is fine and the methods for making suitable parting agents are very much a personal choice.

To make an effective parting agent you need a product which makes an effective barrier between the mould and the casting or pattern piece, to allow the release of the object without damage to either part.

There is no right or wrong – whatever works for you is fine.

Varnish:

Many people simply use varnish over the mould surface – this does work in a lot of cases, but often robs the casting of specific small detail.

Also it is possible that the resulting cast is significantly smaller because of the necessary thickness of the varnish layer.

Also varnish can be quite brittle and prone to cracking and or occlusions (faults, holes etc).

Soap:

Making a solution of liquid soap can work, but it isn't as effective as Soft Soap and does rely on the application being carefully applied – Soft Soap is a much stronger detergent and the application less haphazard than a "home-made" product.

Furniture Wax:

It is not unknown for people to use furniture polish, shoe polish, or even candle wax to coat a mould, there is nothing wrong with this of course – if it works for you then that is fine, however the specific makeup of the specialist product means that the wax compound is much finer and spreads more evenly across the mould surface.

If you need additional information on specific parting agents, or particular advice on a suitable product to use for an application, you can always contact us at either Warren St or Thatcham and our technical staff can assist you.