A Guide to Building Resin Model Kits

Thank you for purchasing from Warhammer.com. Our models are cast using advanced techniques and high quality resin, and this guide will assist you in preparing and assembling them. Should you need any further advice, assistance, etc., regarding this model kit then you can contact our Customer Service Team as follows:

LOCATION	CALL	EMAIL
UK	0115 91 40000	uk.custserv@gwplc.com
USA or Canada	800 394 4263	custserv@gwplc.com
Australia or New Zealand	0115 91 40000	uk.custserv@gwplc.com
France	04 88 80 71 99	gwdirect@gwplc.com
Germany	0211 38769276	mailorder@gwplc.com
Italy	069 931 3110	customerservices.ita@gwplc.com
Spain	93 524 07 62	hobby@gwplc.com
Rest of World or EU	+44 115 91 4000	uk.custserv@gwplc.com

Please Note

To get the best results from Forge World miniatures, some more advanced modelling skills and tools may be required. Certain products may be dangerous if used incorrectly and **Forge World does not recommend them for use by anyone under the age of 15 without adult supervision.** Whatever your age, be careful when using the methods described in this guide. When using glues, bladed equipment, sprays and other tools, always make sure you read the manufacturer's guidelines and follow the instructions on the packaging.

Tools & Glues

When it comes to building a resin model, a selection of tools will be required. Games Workshop produces a range of high quality, specially designed tools that are ideal for working with Forge World resin. A selection of tools are available from warhammer.com as part of the Citadel Tools range.

Tools

Clippers
These are useful for removing pieces of resin that are too large to safely remove with a knife, and for snipping both resin and plastic components off their sprues.

Modelling Knife
A good quality modelling knife is very important – it will be necessary for cleaning up castings prior to assembly and is a very useful tool for removing mould lines and shims (see the Preparation section of this guide). It is important to be careful and steady-handed when using a modelling knife to ensure you don't cut yourself.

Sanding Pads, Sandpaper and Files
Sandpaper or sanding pads are useful for sanding larger areas and smoothing trimmed or sawn areas after larger gates or vents have been removed. For smaller areas, a file set is also useful. **Sanding resin can produce a very fine dust, so wearing a dust mask is advised.**

Variable Speed Rotary Tool
A rotary tool can be used any time you need to sand, file or cut something, and will greatly increase the speed of these tasks. It is, however, a tool for the experienced modeller and should be used with care – **using eye protection and a dust mask are advised.**

Saw
The most useful type of saw when modelling will be a piercing saw or a razor saw. A piercing saw gives very fine cuts, but the blades are quite fragile. A razor saw is more substantial, but won't give as fine a cut. **Sawing resin can produce a very fine dust, so wearing a dust mask is advised.**

Tweezers
Tweezers are very useful for adding small and fine detail parts or for adding parts in hard to reach places.

Drill and Drill Bits
Drills can be used to drill out the likes of gun barrels as well as drilling a hole in a part in order to pin two pieces together using metal rods for greater strength.

Sculpting Tools
These are available in a variety of different forms and can be used to smooth modelling putty into place.

Mouldline Remover
A mouldline remover is ideal for gently removing any mould lines that have appeared during the casting process.

Glues & Modelling Putties

Super Glue
Even though resin is a type of plastic, glues used for plastic kits are not effective at sticking resin pieces together. A good super glue is required instead.

Super Glue Activator
This can be applied to make the super glue set almost instantly. It is best to add the accelerator to one surface and the super glue to the other. Always read the instructions before applying the accelerator to your models as care must be taken when applying it.

Epoxy Glue
For larger and heavier parts, a two-part epoxy glue can be used to provide a very strong bond. As epoxy can take a long time to dry, you can put some super glue on part of the area to hold it in place whilst the epoxy is drying.

Model Filler and Modelling Putty
These can be used to fill in any small bubbles or gaps between components.

Preparation

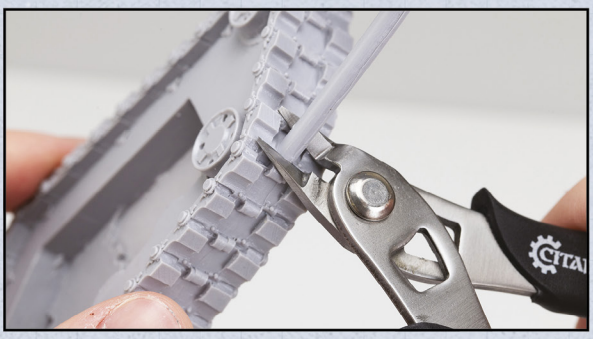
1. Checking & Cleaning

Check your purchase to ensure you are happy with all the components and if you have any concerns contact the Customer Service Team. In the unlikely event you have any issues, it would be helpful if you can provide us with the batch code found on the packaging and a photo of the problem.

Next, clean each part in warm water with a good degreasing agent, such as dish washing liquid, and an old toothbrush. This is to remove any excess mould release agent which may still be on the surface of the parts. Any release agent left on the model may prevent the primer adhering to the model.

2. Casting Gates

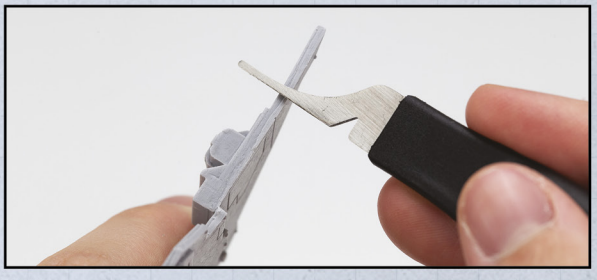
These appear where the resin has been poured into the mould. They are easily removed by using a pair of clippers to trim them off. You can then use a modelling knife, sanding pad or model file to clean off any excess. For gates too large for the clippers, a razor saw or piercing saw is ideal.



Clippers being used to remove the casting gates.

3. Mould Lines

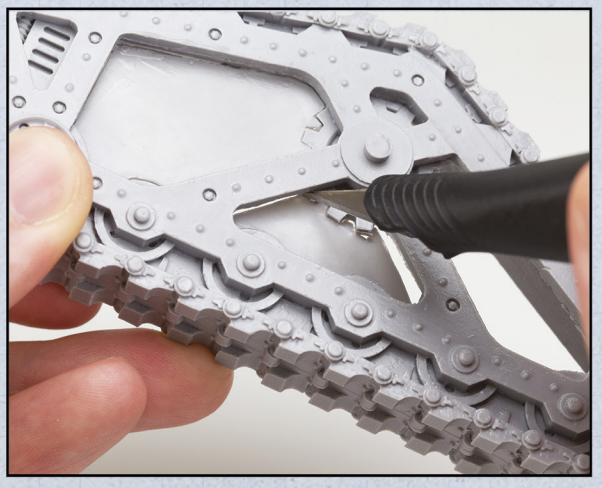
Resin components are produced from silicone moulds that usually have a split line. Consequently, there will often be a slight line on the model that shows where the mould joins together. These are usually very fine, but nevertheless they will need removing so that they don't show up after painting. Mould lines can be removed with a modelling knife, mouldline remover, or file by carefully scraping or filing away the line.



This component has a mould line and some excess resin resulting from the casting gate removal process.

4. Shims

Shims are used to allow resin to flow through a mould without completely filling a gap that is part of a model. They are common in areas such as canopy frames or between loose cabling. To remove the shim, simply run the blade of a modelling knife around the edge of the shim and then press it out. Any excess shim left over can also be scraped away with a knife or mouldline remover, or filed down.

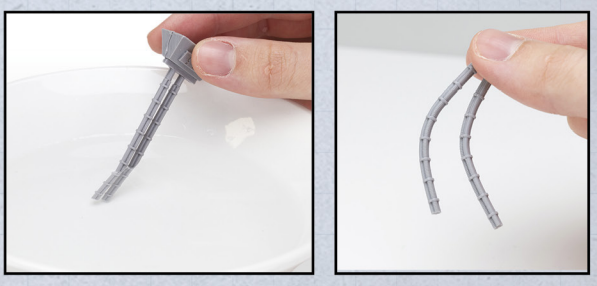


Shims are easily removed by cutting their edges with a modelling knife.

5. Warped Parts and Repositioning

Sometimes, the thinner parts of a model may become bent or twisted slightly, often due to the heat from the reaction of the resin curing. This can easily be fixed by carefully applying heat either by immersing the piece into hot water or by using a hot air gun or hair dryer. Often the piece will reform to its original shape by itself. If not, gently twist the piece back into position. The amount of heat that needs to be applied is often determined by the thickness of the parts, with thicker parts needing to be heated for a longer period of time.

This technique can also be used to bend certain parts into shapes and positions to pose models, such as the mechadendrites of Mechanicum models or the Kytan's pteruges.



By carefully heating the detail on this component, it can be reposed and will set in its new position once it cools.

DO NOT USE A NAKED FLAME TO HEAT THE RESIN!

Assembly

Once the components have been washed and all excess resin has been removed, the model is ready for assembly. If the model has any interior detail or parts that may be difficult to access when fully assembled, it may be best to paint them at an appropriate point during the assembly.

Before gluing the components together, it is a good idea to dry fit them. This allows you to check if there are any potential problems such as uneven joins or gaps. If there is an uneven join, just quickly take a file or fine sandpaper to it before gluing. If there is a gap, this will need filling with modelling putty. Glue the components together so they are straight but don't worry if it leaves a gap. Once the glue has set, use a small amount of modelling putty or model filler to fill in the gap. Sculpting tools can be very useful for helping to apply and smooth the putty into the gap. Once the putty has set, it can be sanded flat to create a smooth surface that matches the components on either side.

Modelling putty has been applied to the gap on this model and sculpting tools have been used to smooth it into place.

Priming & Painting

Citadel Colour Chaos Black or White Scar sprays are great primers for resin models. After the primer has dried, check that it has covered and adhered to the model. If the primer has peeled away from some areas then contact the Customer Service Team for advice on how to resolve this. Once primed, it's then simply a case of choosing your colour scheme from Citadel's huge range of paints and painting your model.

When painting larger models, you might find an airbrush an invaluable aid for obtaining a smooth coverage, particularly on large, flat surfaces. Games Workshop sells a variety of airbrush paints, which are specially formulated acrylic paints designed to give great results with an airbrush, whilst retaining the perfect consistency for applying with a paintbrush.

Games Workshop produces a huge range of paints that excel in a variety of techniques, to help you get the best results for your model.