N-Train.net Bob Davies

Instructions for Paint and Preparation

Painting your model will change its texture. The powdery finish will feel much smoother after two coats have been applied.

Prior to painting:

Always have a clean and clear surface in front of you, we highly recommend that you degrease any 3D Printed object before painting as such structures are build up by the printing company using a waxy substance to support the object. A common way is to use tepid water washing up liquid (that does not contain linolene) or some prefer a clean with Swarfega and a toothbrush then a rinse in warm water to remove any residue.

- ***DO NOT*** clean these models in HOT water as it will distort them
- Always use a well ventilated room
- Always read the safety labels on the materials that you buy.
- If you have an ultra-sonic bath, Wax can be removed using this equipment

Other Chemicals which can be used to clean the model before painting and have been tested are :-

- medical isopropanol (IPA)
- stove cleaning spray
- stain remover for clothing
- acetone free nail polish remover

Things to Consider:

- Paint almost always looks better when wet then when it is finally dry.
- **Speed kills**. ***Try to take your time and be patient.***

Painting 3D printed SLS models (Also known as WSF)

The material has a powdery feel to it because it a nylon powder (polyamide 12) that is sintered by a laser.

This type of model requires sealing with a Plastic Primer, we recommend Halfords Plastic Bumper Primer (available in grey or white). Other similar primers are available, if unsure please consult your paint manufacturer.

Once dry, sand down to achieve a completely smooth surface (400 1200 grit)

There are several types of top paint coat that you can use
acrylic paint, water or solvent based
cellulose spray paint, solvent based
oil paint
nail varnish, acrylic

Do not use Nail Varnish that contains Acetone related products as Acetone eats through 3D Printed objects

Enamel Based Paints struggle to dry if painted directly onto a Printed body, you MUST first prime with at least two coats of the primer mentioned above.

Frosted Ultra Detail (nicknamed FUD or FED)

Is a UV cured acrylic polymer. I produce cabs, wheels and underframe details in this.

During printing, products are supported by a waxy material that is dissolved after printing is complete as discussed above.

This type of material is also painted in the same way as the SLS/WSF material listed above, first prime with suitable plastic primer then paint with Acrylic paint

After a chemical cleaning, always rinse with water. If possible, use a low pressure compressed air source to blow out any blocked holes.

Once cleaned, the print loses its translucent aspect and becomes white.

Some dried out wax remains as powder. The powder can be swept away with a soft brush and a needle.

Leave the model overnight in an airing cupboard to dry before applying your first coat of primer

Resin 3D Printed Models

Wash with warm soapy water and leave to dry before painting. Then paint in the same way as the SLS/WSF material..

Acrylic based paints

Acrylic paint is one of the most common paint types. We have found that the best results occur when you use modeling paints. Like Tamiya Colour Acrylic paints, Citadel Acrylics from the “Games Workshop brand or the Revell Aqua Colour line.

Acrylic paint is easy to wash off your hands with warm water and detergent.

Once acrylic paint has dried on or “into” something it is very difficult to remove from your model.

Acrylic paint is sticky and if your model is wet it will stick to other surfaces.

Once Top Coats have been applied

Use a suitable clear varnish to seal your model when complete, we recommend an Acrylic Varnish if using acrylic paints. Using an Enamel Varnish over Acrylic will cause the paint finish to crack.

You can also seal the body with a coat of diluted PVA and the surface is left with a gloss finish, although it is better to seal with an Acrylic Gloss Varnish for a more hardwearing paint finish.

Adding Vinyls
(See also ElectraRail Graphics instructions)

It is important to ensure that the body shells are dust and dirt free before applying the vinyls.

Start with the cab vinyls and then the sides.

Line up the centre windows and work towards each end ensuring the vinyl is straight and there are no trapped air bubbles.

Be warned the vinyls can stretch with repeated lifting. If this does happen, leave it for a few minutes and it will shrink to size.

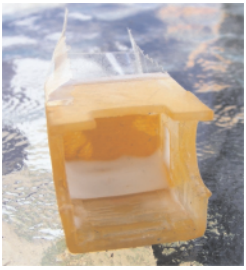
Once you are happy, use a lint-free cloth to smooth the vinyl down and into any door recesses. You can score around the recessed doors with a sharp scalpel if you wish.

ElectraRail Graphics
electrarail.co.uk

Glazing (For road and rail models)

Following painting, and allowing time for the paint to dry thoroughly, wrap clear tape around the exterior of the window openings.

Fill the window cavity with Micro Krystal Klear, or Glue n Glaze. Use a cocktail stick to pop any air bubbles.



Leave overnight, to allow the glue to set. It will change from milky white to clear when ready.

Remove the clear tape carefully.