

GENERAL RECOMMENDATIONS FOR PAINTING 3D PRINTED MODELS

I. Painting Shapeways Fine Detail Plastics (FUD and FXD)

These are recommendations based on our own experiences. Painting is a very personal affair. You may have your own techniques, special painting equipment, and your own touch. Also, available paint brands vary from one region to another.

1. Thoroughly clean all parts following the **Recommendations for Cleaning 3D Printed Models**. These instructions are available in the Trolleyville Schoolhouse, www.trolleyville.com.

2. Sanding of rounded or slightly inclined parts is only necessary when printing steps (lines) are visible. Proceed carefully, grit 400 sandpaper is recommended. Rinse in water and let dry.

3. Apply a coat of acrylic primer outside and inside. We recommend black spray primer, even if the model is to be painted in clear colors. Thus the car body becomes opaque for eventually installing putting lights. First paint also a small test surface (a piece of plastic from your scrap box) before painting the car itself.

Note 1: Do not use enamel products, this paints will not normally stick to Shapeways Fine Detail Plastics!

4. Select the colors you need for your paint scheme and test on your plastic surface if they cover well over the black primer. Satin acrylic spray paints give best results. Small parts can be hand painted. **Using color paints of the same brand is recommended.**

5. Use **Tamiya Masking Tape** for covering the parts when spray painting This tape is easy to handle, can be repositioned several times during the preparation and should not normally strip the paint away when pulled off.

6. Go ahead and airbrush or brush paint following your favorite paint scheme and the instructions on the container of your chosen paint.



II. Painting Shapeways White Strong & Flexible (WSF)

1. Clean all parts following the **Recommendations for Cleaning 3D Printed Models**. Sanding is not normally necessary and has generally no impact on this Nylon-like material. If you want to smoothen the surface on some parts, use carefully a brass brush.

2. Spray painting or hand painting gives the same result on this porous material. Parts made of WSF literally “suck in” the paint. No primer is necessary. For most WSF parts (floors, truck frames, trolleys or pantographs) we suggest two coats. More coats will smoothen the surface, but can also hide some details.

PAINTING THE SIEMENS S70 ULTRASHORT IN SAND DIEGO MTS COLORS

1. Before starting, become familiar with the San Diego Paint scheme. **Search for “San Diego S70” in Google Image Search and look for the 4000 cars.** There are many images of any angle.

The paint scheme is essentially based on 'Signal Red' (Pantone 200C) and 'Black' for the body, and 'Medium Grey' / 'Silver' for the roof structure and containers. See below for more details on color brands.

2. Start painting the floors, couplers and the dummy pantograph **black**

3. Apply a coat of **black primer** on the inside of the three car bodies.

After drying, apply two coats of primer on the outside

Note 1: For easy painting, stick 8 toothpicks into a thick styrene strip at the position of the screw holes. On these toothpicks you can “plug” the car bodies for easy painting.



8 toothpicks supporting the car bodies

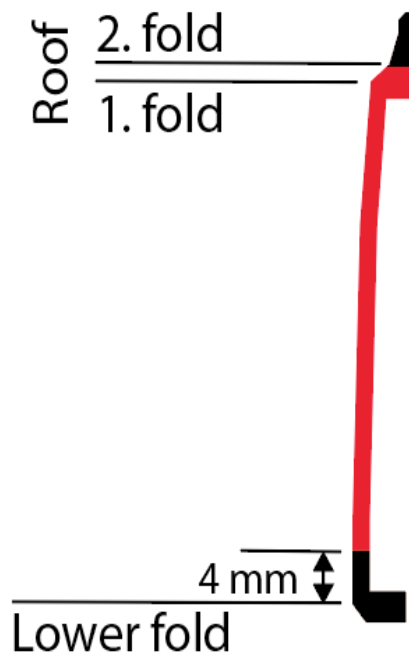
4. If your car has a black satin finish, and the surface looks good, you don't need another pass of black. Otherwise apply another coat of primer.

5. Preparing the red paint by masking the parts staying black: On the roof, mask all parts above the **2. fold** in the roof, counting from the bottom. (See illustration at right!)

6. On the bottom of the cars, mask all parts below a straight line situated **exactly 4 mm** from the bottom edge of the car bodies.

Verify that the masking of all 3 car bodies follows that same 4mm horizontal alignment.

You can either mask the articulation ends totally or mask following the same scheme as the sides.



Car Body Profile

7. With small scissors, cut a rounded part off a strip of Tamiya Tape for the **rounded paint scheme over the cabin sides**.

8. Over the cabins, mask the roof spoiler and also the place of the destination sign covered by the windshield



Painted A or B body.



Front Windshield installed correctly!



Masking the curved end.

9. Mask the windows from inside. Verify that all parts that should not receive red paint are properly masked.

10. Apply **two coats of red paint**. Allow the paint to dry thoroughly.

11. Strip off the masking tape. If red paint bypassed the masking tape at some points, don't worry, this can be corrected properly.

Note 2, Touch Up with a brush:

Spray some paint in a small cup and apply with a brush. Spray paint dries quickly, make only one correction a time, and clean the brush quickly.

Note 3, Touch Up with a lacquer pen:

This is my preferred method. I use Mitsubishi uni-Posca lacquer pens, they are available with fine 1mm points.



12. Painting the roof:

My preference is to hand paint the roof with medium grey acrylic paint. This avoids complicated masking. If the paint overflows in some places on the roof, it can easily be corrected with a sponge – or later with the lacquer pen.

13. After two coats of grey, paint the top of the 1st (and the 3rd containers silver



Roof View B Unit

Some Paint brands

Acrylic spray can paint, satin finish:

Marabu #031 'Scarlet Red'

Marabu #073 'Black'

(probably not available in the US)

or

Molotow Belton Premium

#014 Signal Red

#180 Signal Black

For airbrush:

tru-color TCP-055 Soo Line Red

tru-color TCP-010 Black

(currently available in the US))

http://artprimo.com/catalog/spray-paint-belton-molotow-premium-c-26_35.html

http://molotow-na.com/catalog/spray-paint-molotow-spray-paint-c-26_35.html

Hand Painting, gray

Flashé vinyl base paints, this is an artist brand, painting matte, velvety and opaque.

tru-color TCP-94 Via Gray

Note: Some tru-color paint is not supposed to be brushable although some have had luck with it.

