



## Airbrushing Lacquers

### Introduction

Lacquers spray smoothly and are probably the easiest paints to airbrush. The finish is very thin and does not cover up detail. Lacquers are self-levelling and can produce very high gloss finish. They dry quickly taking typically 5 to 10 minutes to be touch dry.

### Safety

Modern acrylic-based lacquers used in modelmaking do not have the toxic chemistry that the older lacquers had.

However, care is still required in their use;

- Work in a well-ventilated place.
- Use a breathing mask and a spray booth to minimise exposure to the chemicals.
- Store lacquers and thinners away from flame sources.
- Lacquers and they thinners are very strong, and care is required to prevent damage your models and equipment.

### Nozzle Sizes, Air Pressure and Thinning Ratio

Below are the recommendations a fine quality double action airbrush such our Runway 13 AL-133B Nozomi.

Work	Nozzle/Needle	Air Pressure	Paint/Thinner Ratio
Detail Work	0.2 or 0.3mm	8 to 12 psi	40:60 Mr. Color 80:20 SMS 50:50 Tamiya
General	0.3mm	10 to 15 psi	45:55 Mr. Color 30:70 Mr. Surfacer 90:10 SMS 55:45 Tamiya
Large Area	0.5mm	12 to 18 psi	50:50 Mr. Color 40:60 Mr. Surfacer 90:10 SMS 60:40 Tamiya

\*Lacquer Thinners are very strong solvents and should be used with great care. Check with your airbrush supplier before using these solvents on your airbrush.

### Spraying

The good news here is lacquers in many ways are easier to spray than more hobby paints. Sure, you have to take care with the fumes and not dissolving your model and decals as you spray but you will love the predictable manner lacquers come out of the airbrush.

### Priming

Mr. Surfacer 1000 is the main primer I use. I airbrush it to check join lines for imperfections and as a general undercoat.

Primers like Mr. Surfacer are quite thick in the jar and require a lot more thinners for use in an airbrush.

A paint/thinner ratio of 30:70 is suitable for general work. Some people have problems with the Mr. Surfacer spraying out like "spider webs" which means the mixture doesn't have enough thinners.

Mr. Surfacer dries with a slightly coarse finish and needs a little rubbing down. After spraying Mr. Surfacer, use some very worn out 1500 grade sanding sponges to lightly rub down the whole model and dust it off with a large soft brush before next coat.

### Applying Coats

Airbrushing lacquers is really no different from spraying other paints. Apply the colour in 3 to 4 light coats rather than one heavy one. Lacquers are fast drying and you

need only allow a minute or two for matt paint before recoating. Gloss colours will need a few more minutes.

Turn or move the model as you airbrushing to make it easier to get to all parts of the model. Airbrush any corners, crevices and hard to get to areas first before moving to the main flat areas. This makes it easier to get an even coat of paint and avoid too much paint building up in the hard to get to areas.

### Cleaning

Airbrushes can be cleaned with lacquer thinners. No need for the expensive hobby shop stuff, just cheap lacquer thinners from the hardware shop will do.

Careful with lacquer thinner on the rubber O-rings in your airbrush. Quick rinse and wipe are OK but soaking the O-rings in lacquer thinners will cause them to swell up and turn them to jelly. If this happens do not put the O-rings back into the airbrush. Leave them out to dry overnight and they will shrink back to their original size. Lacquer thinners will dissolve many plastic containers and even the paint on the handle of your paintbrushes.

### Special Considerations

#### Whites

Everyone hates painting gloss white. White is difficult as it is very hard for this colour to cover any other colour, even light grey primer. If you spray gloss white with a water-based acrylic it would take about 10 coats to cover grey prime.

Fortunately, with lacquers they have a number of high opacity white paints. Products like Mr Color GX1 Cool White and the SMS White would cover in just 2 to 3 coats.

#### Clear Coats

As a general rule I never use a clear coat product that is not water clear in the bottle. Any clear coat that has any colouration like amber whilst in the bottle would very probably turn yellow with age.

## Brands

It was hard till a few years ago to get model lacquers in Australia. Floquil was the main brand available which specialised to model railroad colours, but they were eventually discontinued.

Things have changed, and we are now spoilt for choice with lacquers from established and new brands coming onto the market.

### GSI Creos Mr Hobby (<http://www.mr-hobby.com/en/>)

**Mr. Color** - Probably the oldest and most prolific range of hobby lacquers. These should not be confused with their Aqueous Hobby Color paints which are in similar bottles but are water/alcohol based.

These lacquers are made for hand painting and you will need to thin them for airbrushing.

**Mr. Surfacer** - An excellent surfacing primer with dissolved filler to the help smooth the surface. Comes in different grades from 500 (coarse), 1000, 1200 and to 1500 (fine).

**Mr. Color Thinner** - This is the standard thinner for the GSI Creos lacquers and it is my main thinner for thinning any brand of the lacquers.

**Mr. Color Levelling Thinner** - This is a retarding thinner which makes lacquers dry slower and helps it self-level and smooth out. It is good for top wet coats for high gloss finishes.

I have found this thinner to be aggressive and can eat into enamels and decals. I "water it down" by and mixing about 50/50 with the standard Mr. Color Thinner to reduce its aggressiveness.

### Scale Modellers Supply (<https://www.scalemodeller.com.au/>)

This Melbourne-based business makes a range of excellent lacquers. They have colours for general, vehicle, railroad and aircraft, as well as specialist pearl and candy finishes and paints for Gundam models.

**Premium Airbrush Paints** - Supplied in 30ml glass bottles the SMS lacquers come "ready for airbrushing" which is advantageous to those who like "shake and go" paints.

I do add some extra thinner to help it flow out of the airbrush better.

**Primers** - SMS have primers conveniently in Grey, Black and White colours. They appear to have less filler compared to Mr Surfacer and dries harder which can be preferable for some applications.

**Thinners and Retarders** - SMS supplies their thinners in 100ml bottle and have a separate retarder available. I have not used these yet as I use the Mr Hobby thinners with SMS Paints with good success.

## Tamiya

(<https://www.tamiya.com/english/products/list/lacquer/kit82101.htm>)

Whilst we all know Tamiya, they didn't make any hobby lacquers until recently. Exception to this are the aerosols and many modellers have "decanted" the paint out of these and sprayed them with an airbrush.

**Color Lacquer Paint** - A couple of years back Tamiya introduced this new range of lacquer paints which have over 60 colours. Supplied in the familiar 10ml jars these paints are for hand brushing.

I have found Tamiya Lacquer to be thinner than the Mr Color and therefore needing less thinners for airbrushing.

**Thinners** - Tamiya makes both a normal Lacquer Thinner and Lacquer Thinner (Retarder Type). The Retarder Type has a retarder which slows the drying (a little) to allow the lacquer to self-level for a smoother finish. Both thinners are available in a more economical 250ml size bottle.

So Testors Glosscote and Dullcote, and Humbrol Enamel Clear are examples of products to avoid.

Mr Color Super Clear III is the clear coat I use but I have found the SMS Super Clear also to be excellent. Yes, when you look at both they are water clear.

Lacquer thinners are quite strong and too much wet thinners directly contacting paints and decals will cause them to wrinkle up. The tip is to first apply light "mist" coats over the model and leave a few minutes to dry between these coats. The thinners evaporate quickly and do not have time to attack the surface. Do not use any retarders at this stage.

Then apply the main coats which are sprayed in the normal manner to build up the clear coat depth. Between each coat you can rub down the clear with some well-worn 1500 grade sanding sponges to smooth out the surface.

Topcoats are done to smooth out the clear and produce a high gloss finish. With the topcoats you mix less paint and more thinners. Here you can use some to slow down the drying and allow the lacquer to smooth itself out and produce a high gloss. The idea with applying topcoats is to spray enough to slightly flood the surface. This can be a little tricky as you can overdo it and cause "runs" (too much paint and it starts to drip down the model). Fortunately, lacquers tend to self-level which does even these runs out a little.

## Further Information

I hope you will find the airbrushing notes useful and interesting. If you have any further questions, feel free to contact by email.

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