

Gloss Finishes for Models

Comparison of Paint Types

Lacquer

'Hot' – require primer over plastic (Tamiya Acrylics are not as hot and do not require a primer)

Lacquers bring out defects in plastic or patches

Require buffing & polishing to get good clearcoat.

Recoat base color in 10 – 15 minutes

Wait two weeks for clearcoat

Enamels

Gloss paints achieve nice clear finish, may not require clearcoat.

Slow drying – recoat in 20 minutes or after two days

Can be buffed & polished

Wait two weeks before clear coat, then another two weeks for buffing & polishing

Urethane

Must take maximum safety precautions, particularly with clearcoat

Expensive

Dries quicker, two to three coats applied continuously, can be handled in minutes

Easier to work with and more durable

Not hot like lacquers so they won't damage plastic

Dries to very even, uniform, well-hiding coat in minutes

Covers well - whites and yellow colors.

Acrylics

OK for base color coats but not clearcoat.

Gloss Finishes with Lacquer & Enamel Paint

References:

["The Art of Airbrushing Show Quality Model Cars"](#) DVD by Don Yost (Lone Wolf Custom Painting)

- He uses enamel paints with an airbrush and applies all coats at one time.

["Great paint from spray cans: Part I"](#)

Simple steps to a glass-smooth paint job

By Pat Covert

Scale Auto Magazine

-How to use Tamiya spray lacquers (acrylics) to achieve a gloss finish

"The Art of Automotive Model Finishes"

by Darryl W. Peters, Ph.D.

Seminar from 2010 IPMS Nationals

See copy of presentation on SDMB website

Primarily uses Tamiya & ModelMaster lacquers, with some enamels and acrylic enamels. Scale Finishes are good enamel paints that match original car colors.

Process for using lacquers:

Spray can primer (2-4 coats w/wet sanding)

Dry 2 days to 2 weeks

Sealer, if necessary (1 coat, no sanding)(red plastic, yellow or white paints)

Dry 3 hours

Color or base coat (2-4 coats w/wet sanding)

10 minutes between coats

Dry 2 days to 2 weeks

Clear or candy coat (2-4 coats w/wet sanding)

Dry 2 days to 2 weeks

Apply decals with setting solution

Allow decals to dry for 2 days

Wash model to remove decal glue and setting solution and then dry

Apply clear coat over decals

Apply straight thinner after last clear coat
Dry 2 days to 2 weeks

Wet sand with 6000-to 12000-grit polishing cloths
Polish with Novus #2 or Meguiar's Scratch X

Buff with Turtle Wax Clear Coat or Meguiar's Cleaner Wax
Final clean with Novus #1 or Kleenmaster Brilliantize

Painting Model Cars
Greg Hansel
IPMS Loveland 2013

Notes from seminar.

Urethane paint dries quicker, easier to work with, and more durable. Urethanes are not hot like lacquers so they won't damage plastic. Dries to very even, uniform, well-hiding coat in minutes. Durable & can be handled in minutes. Urethane covers well - whites and yellow colors.

Enamels are okay, but take longer to dry. Lacquers bring out defects and require buffing & polishing to get good clearcoat. Acrylics are ok for base color coats but not clearcoat.

Prepping the body

Remove mold lines, scuff with 800-grit sandpaper. Need an even color to paint over so prime areas that have been filled or have different materials. Use Poly S Plastic Prep to clean areas after sanding.



Plastic prep & masking materials.

Primer

Dupont Acrylic Sealer 422-23 Select Seal 1k. Dries in 10 minutes. Does not require sanding. Tamiya fine primer is also good but more expensive. Technically can get away without primer, as urethanes won't attack plastic.



Dupont 422-23 Acrylic Sealer

Clean up everything with lacquer thinner.

Color Coats

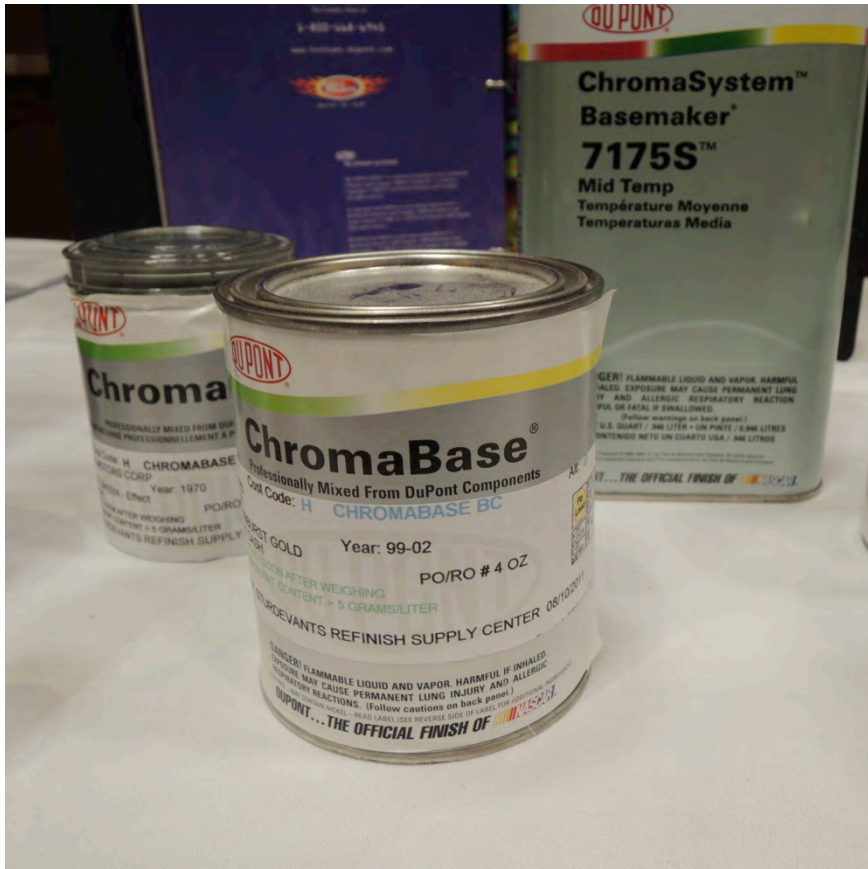
Dupont, PPG, House of Kolor for custom colors (available from tcpglobal.com).

DuPont Chroma Base Urethane.

Local supplier is Finish Masters on Stone & Grant. Can custom mix 8 ounces. About \$48 for custom mixed 8 ounces – enough for several cars.

Safety is more of a concern with urethanes. Requires paint booth or well-ventilated space. Use latex gloves, respirator, safety goggles, and full paper suit with clear urethanes.

Use mixing cups. Use pipettes available from Amazon medical pipettes - box of 1000.



Dupont ChromaBase urethane paint.

Poly bottles of paint last a month, cans last years.

Reducers have temperatures – high/medium/low based on environmental temperature. High temperature for Tucson.

Colors should be mixed 50/50 paint reducer/urethane paint. Use the same brand reducer as paint. Spray at 20 PSI, up to 25 PSI for overspray. Use .5 mm nozzle on airbrush. Three coats are required for uniform coverage. Color should be applied in medium wet coats with 50% overlap between passes. Good coverage will be achieved with each coat. Can go right back over previous coat. Vary direction with each coat. Hold airbrush about 4 to 6 inches.

Hold car upside down for recesses & overhangs, then two sides, and finally top.

Never stand between coats unless the paint is damaged.

Repairing Debris in paint color

Finish coat, then wait 2 to 3 minutes, rub with sanding sticks to remove debris, then apply an additional coat of paint.

Effects

Candy - transparent mid-coat (tinted clear). DuPont Hot Hues - \$60 per pint bottle. Get it in left over broken cans

Mix 10% candy with 90% Inter-Coat Clear. Apply candy over gold, silver, metallic gray, or similar color to finish color. Applying to base similar to candy color is much easier.

Too heavy a coat of candy will create dark spots. House of Kolor Marbleizer finish creates 'crinkled' finish. 'Smooosh' wet paint with Saran wrap or small bubble wrap.

Use Castrol Super Clean to remove paint.

Clearcoat

Urethane two-part catalyzed clear.



PPG 2 part urethane clearcoat.



Dupont 2 part clearcoat & reducer

Safety is critical with urethane clear coats!

Dries by chemical reaction with activator. Isocyanate leeches into skin. Full head to toe paper suit (\$6) required for clearcoat. Wear respirator, goggles, and gloves.

Clearcoat dries in 20 minutes (dust free), cures in 6 to 8 hours. Can run two to three medium wet coats back-to-back. Hardeners (activators) come in different temperatures. Four to one mixture, four parts clear to one part hardener. Can use reducer for better flow. Use specific reducer for clearcoat.

Urethane clears require a temperature of at least 65° to apply. High temp activator flows out better and stays wet longer

8 to 2 mL. ratio mixed with pipettes. Will see bubbles in mixture but that's ok. One hour pot life. Use .5 airbrush nozzle. Clear should be applied in 2 to 3 medium wet coats, not misted. Keep other parts away to avoid overspray as this will ruin the finish.

\$50 to \$75 for clear materials. Clear material will last for years but canned activator will last a few months.

Clean airbrush thoroughly with lacquer thinner.

Use Tamiya tape for masking. Yellow Frog Tape is a cheap alternative from Minard's.

Decals should be applied after first coat of clear, then another coat of clear.

Alclad Chrome

Apply black paint, then clear urethane, then Alclad Chrome.