Metal-Kote II

A spray-on real aluminum finish,
now easier to apply with better results.

WARNING

Always spray Metal-Kote out-of-doors or use an exhaust fan to remove the overspray. Always wear a suitable charcoal filter mask to avoid inhaling the solvents and microscopic aluminum particles. A proper mask, properly fitted, will prevent you from smelling (inhaling) any of the vapors.

Protect your hands from any contact with any paint or thinner product with surgical gloves. This product is to be used only by modelers experienced in the proper handling of paints and thinners.

INTRODUCTION

A properly applied Metal-Kote II finish will yield a very realistic aluminum skin appearance. It is different than any other type of aluminum paint and therefore it is best to practice the application on some test panels. As you gain experience with the material and the guidelines below, we are sure you will like the results.

Model surface preparation: all surfaces should be filled and sanded smooth leaving no wood grain, fiberglass weave, or pin holes visible. The initial primer surface can be the mix described below.

NOTE: Metal-Kote II has been formulated from the original Metal-Kote and some new additives. It greatly eases the application process, is significantly more durable, and is easier to repair.

The preparation of the primered surface will determine the final affect of the aluminum finish. Metal-Kote II does not cover or disguise scratches or other imperfections in the primered surface.

Large areas of the model that are to be color painted should be masked off and painted prior to applying Metal-Kote II to avoid excess handling of the aluminum surfaces.

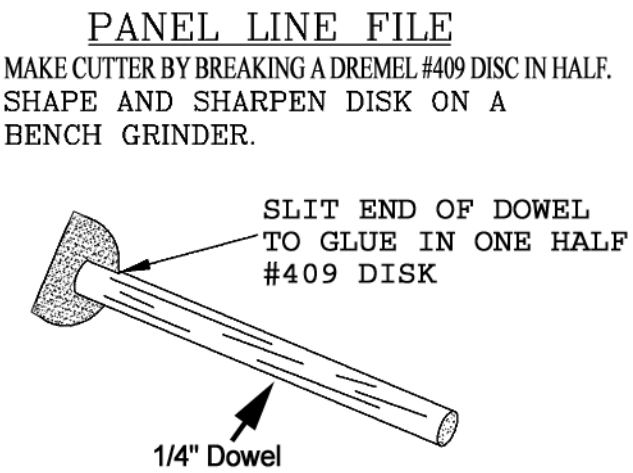
The Undercoat

- The undercoat for Metal-Kote II is a mix of PPG K-36 primer and black PPG Concept paint to darken it. This provides strong adhesion for Metal-Kote II and the required reflective qualities for the aluminum.
- Mix the primer/paint per for the formula provided (below) and spray on a few thin, but wet coats. It is desirable to not have to sand out orange peel, runs or dry spots. Properly applied, a light wet sanding with #800 grit, then more thoroughly with #1200 will suffice.
- A 3M #7448 grey scuff pad is similar to 1200 grit paper and can reach low spots and inside corners.
- Shake thoroughly, then mix 2 parts of Metal-Kote II to 1 part of Metal-Kote II thinner. Mix Metal-Kote II with its thinner in a quantity that can be used in a few hours. If the mix is over a few hours old, discard it.

  For small areas, mix 1oz. of Metal-Kote II with 1/2 oz. of its thinner. Spray on 2 misty coats using an airbrush similar to the Paasche dual action with the #5 needle and nozzle using 30-40psi. Hold the airbrush about 10-12” from the work area and move it in a randon circular motion to get even coverage. Do not allow it to get too wet in any one area. Keep the liquid in the spray bottle agitated between coats.
- Metal-Kote II will dry in a few minutes but can be accellerated with a warm air blower. The finish you see now will be less than desired but necessary to show the work that must still be done. All traces of the Metal-Kote will be sanded away to prepare the surface for the final application.

- For a varied panel appearance, some panels can be sanded in different directions than the adjacent panels. If surfaces do not have panel lines, they can be scribed in using the hand made tool shown here. This same tool can be used to clean out panel lines that are molded into a fiberglass part. Shape the cutting edge as needed with a grinding wheel.

- To final sand a panel, apply masking tape around it, positioning the tape 1/32" outside of each panel line. Use #1200 grit paper (wet) and stroke the panel in one direction removing all traces of the Metal-Kote II. Now, polish the panel with Micro Mesh 6000 (wet).



- Complete only a few panels and test your results by applying 3 to 4 coats of the same Metal-Kote II and thinner mix, allowing each coat to flash off.

Use the Sun If Possible to Inspect for Aluminum Dust

- The remaining scratches and swirl marks add realism to the aluminum panel affect.

- Inspect panels by viewing in the sun (or a bright incondescent bulb) at a low angle. If any blushing is evident, spray on a misty coat of Metal-Kote II Thinner.

- Lightly polish the surface with MicroMesh 12000 (wet) to remove any loose aluminum particles and dust. The finish should be smooth to the touch. Should any panel be unsatisfactory, you can burnish it again with MicroMesh 6000 and recoat.

NOTE: Metal-Kote II must be thoroughly dry before burnishing. High humidity will delay the drying. A heat gun can be used sparingly to accellerate it.

Bonding Clear Coat

This product greatly increases the adhesion of the clear coat to the Metal-Kote II. Thin the bonding clear 50% with Metal-Kote II thinner. Mist on a very sparing amount onto the Metal-Koted surface. Hold the airbrush about 12" away from the surface and use a circular motion. Do not allow a wet coating to appear.

Allow the bonding clear to dry for at least 1/2 hour, but less than 6 hours before the clear coat is applied.

Clear Coat

- Metal-Kote II is fairly durable without clear coat. You may choose to leave some panels that may not receive frequent handling, bare aluminum for a very realistic appearance.

  NOTE: Regular masking tape should not damage the Metal-Kote II. Try the tape on your test sample first. The bare Metal-Kote II finish can be cleaned with a "Windex" type of cleaner but will not stand up to solvent cleaners.

- Mix the clear as directed below. We use PPG 2021 clear because it is handy. Other brands of automotive clear will work if properly thinned, almost to a watery consistency.

Taping, Masking & Painting over the clear coated Metal-Kote II

- Applied correctly, the clear coated Metal-Kote II finish can accept the 3M blue plastic trim tape, 3M masking tape and computer cut adhesive masks. It is best to not expose masks and tapes to extended direct sun light.
- To remove the masking, it is always best to slowly peel it back over itself rather than yank it off at 90° to the surface. Do not mask over the rub-on rivets (if applied).

Final Burnishing

- To remove any dust particles that detract from the look and feel of the aluminum finish, use MicroMesh 8000 and then 12000 wet on the cured clear coat.

Rivets

- Should you choose to add rivets to your scale model, the ProMark rub-on rivets are easily applied. These solid aluminum (epoxy) rivets look very realistic, BV's F-86, T-33 and MiG-15 utilize this system. Do not apply tape or masking material over the rivets (clear coated or not).
- The twist (or burn) in rivet technique also looks great. Either system is applied over top of a first, thin clear coat.
- For the rub-on type, apply a thin clear coat (stop spraying at first sign of a smooth glossy finish). After cure, burnish the surface with MicroMesh 8000. Apply the rivets per ProMark's instructions then wipe the glue residue off with a very modest amount of isopropyl alcohol on a paper towel. Too wet a wipe may float off some rivets.
- Apply a second thin coat of clear, then burnish again with 12000 Micro Mesh..

NOTE: It is important to avoid any orange peel in the clear. Use a slow reducer and a fine spray.

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PRIMER MIX	CLEAR COAT MIX
K-36 PPG Prima = 4 parts Black PPG Concept = 1 part Omni Hardener MH167 = 1 part Omni Reducer MR185 = 6 parts	Clear PPG DCU 2021 = 2 parts Omni Hardener MH167 = 1 part PPG Reducer (per ambient temp) = 5 parts

NOTE: Other brand paint products that are similar can be used. Always apply sample mix to a test part.