

## How to Properly Repair Paint Chips

**T**he repair of a scratch and a chip are the same. A scratch is merely a chip on uni-directional steroids. The only problem with a scratch is that it takes more time to be able to blend in the new paint.

Items you need:

1. Touchup or color matched paint
2. Compatible primer - I like Wurth Rustop primer
3. Organic cleaner - P21S Total Auto Wash or Wurth Citrus Degreaser
4. Solvent - Rubbing Alcohol or Prepsol or Enamel Reducer
5. 3M Imperial Hand Glaze
6. Meguiar Finesse Sanding Block 2000 grit
7. Car wash
8. 600 grit wet/dry sandpaper
9. Round undyed wooden toothpicks
10. Large lightweight cardboard boxes (large shoe box or bigger)
11. Several 100% cotton towels
12. Magnifying glass - help for we with older eyes
13. New Pencils with unused erasers
14. Rubber glue
15. Several heavy clean plastic cups
16. Roll of quality paint masking tape

Realize that paint chip repair is a learned skill and should be practiced on an area of the car that is not that visible. The hood and nose are two areas that should be tackled last. Test all cleaners or solvents on the paint prior to usage. I like to use the seam underneath the rocker panels. Apply a little cleaner or solvent to a cloth and rub the seam. If you do not get any color on the rag, then the cleaner/solvent should be safe for the paint. If you do get color on the rag, then you may wish to consider another solvent.

### **CHIP REPAIR STEPS:**

1. At least 24 hours before you want to start, use the rubber glue to attach small 600 grit sandpaper circles (the diameter of the eraser) onto several new pencils. The eraser must be unused and flat on top.
2. Step #1: Wash the car with a quality car wash and dry thoroughly.
3. Paint chips come in two flavors. The worst case has exposed the bare metal, while the less severe has left the original primer intact. Clean the area thoroughly with the P21S or Wurth Citrus degreaser. If there is rust on the exposed metal, clean off with the pencil eraser. Use a toothpick to gently probe the area and make sure that the edges of the chip are secure and not waiting to fall off and destroy your work. This is an optional step! If you do not feel comfortable with sanding or your paint is one of the new clear-

coated finishes, you should jump to step number 5. Take a new pencil/sandpaper tool, dip into clean water and put a few drops of water on the chip area. \*SLIGHTLY\* rough up the chip and a small portion of the surrounding paint. Lightly turning the pencil will rough up an area the diameter of the eraser and this should be more than enough. Keep the roughed up area as small as possible, the object is to give the new paint approximately 1 mm of old paint to "grab" around the perimeter of the chip and not dig scratches.

4. Move onto the next chip and repeat the above. Depending upon the amount of time available, you may wish to tackle 10-20 chips at one time. Try to stay within the area that may be covered by your box(es).

5. When finished sanding all your chips you are tackling at this time apply a small amount of Alcohol or Prepsol or Enamel Reducer to a rag and wipe each chip and surrounding area to remove any sanding dust and grease/oils. Use additional solvent and new area of the rag for each chip. Allow to dry (these are highly volatile and will evaporate quickly with no residue).

6. If the original primer is intact, and "pencil sanding" does not disturb the primer, then skip the next step and go directly to painting (# 9)

7. Make sure that the chip and surrounding area is clean. If not, reclean with the Prepsol, Alcohol or Enamel Reducer. Pour or spray a small amount of primer into a clean plastic cup. Dip the point of a wooden toothpick into the primer to get a thin coating on the first 1-2 mm of the toothpick. If there is a blob on the end, gently scrape it back into the cup. Place the tip of the toothpick against the center of the chip and allow capillary action to literally flow a \*THIN\* coat of the primer into the depression of the chip. Move onto the next prepared chip. If you have finished priming all your prepared chips before two hours are up, cover with a box, taped down with masking tape and go have a beer. The key is to allow the first coat of primer to dry at least two hours. Dispose of your cup and start with a fresh cup and toothpick. Apply another thin coat of primer to each repair that needs primer. Priming is completed when no metal is visible and the level of the primer is \*BELOW\* the level of the surrounding paint. This is important! Cover and allow to dry for two hours or until dry.

8. Apply a small amount of Alcohol or Prepsol or Enamel Reducer to a rag and wipe the chip and surrounding area to remove any sanding dust and grease/oils. Allow to dry. Repeat for all the chips that are on today's list of victims.

9. If you are using a touchup, shake the bottle thoroughly. If you are using color-matched paint, mix thoroughly and pour a small amount into a clean plastic cup.

10. Dip the point of a new toothpick into the paint to get a thin coating on the first 1-2 mm of the toothpick. If there is a blob on the end, gently scrape it back into the bottle. Place the tip of the toothpick against the center of the chip and allow capillary action to literally flow the paint into the depression of the chip. Repeat for each chip. The key is not to use too much paint. Do not redip the toothpick. Use only the amount that will flow from one dip. Temptation to add more paint with each application will be

almost overwhelming. Fight it!

11. Cover with your paint box and allow to dry 2 hours and repeat 8-12 times till the depression is filled with paint and bulges slightly upward and covers the roughed up area with a thin coating of paint. The first 2-3 coats may not completely hide the primer. This is fine because you have many more coats to go. Fight that urge!

12. The paint application is completed when the new paint bulges slightly upward (a fraction of a millimeter) and had covered the roughed up area with a thin coat of new paint. Allow the paint to dry for at least a week.

13. The touchup paint has been applied to the surface and allowed to dry for at least 1 week, and resembles a minute mound ( \_\_o\_\_ ) (this is exaggerated) on the flat plane of the existing paint. The object is to remove the mound and make the surface of the paint one continuous flat plane. The Finesse Block offers the ability to gently remove only the high spot of the repair. Unlike sandpaper or polish on a rag, the five usable sides of the block are flat and act like a "wood plane" to remove only the elevated areas of the repair. The 2000 grit will not leave scratches.

14. Soak the Finesse Block in clean water for 24 hours prior to use. Put a small drop of car wash on the chip repair. This acts as a lubricant for the sanding block. Then gently "plane" the high spot on the paint. I prefer to "plane" in one direction (usually back to front - drawing the block towards me). If the block dries out, re-wet and continue use. When the new and existing paints are blended (smoothed to the flat plane) to your satisfaction, clean the area using a quality car wash and lots of water and then use a quality glaze to restore the high gloss finish. I prefer 3M Imperial Hand Glaze. Don't use a machine on your car, as it deserves to be caressed by hand. Use a machine on your Yugo or SO.

15. When applying either a glaze or a wax, apply to your soft cotton cloth or applicator pad (don't squirt the stuff on the car) and work in one direction only. Don't go around in circles like dear old dad. Circles are many times the cause of "swirl marks." A front-to-back, back-to-front motion (the way the air flows over the car) will help minimize swirl marks or at least make them less visible. Buff out with a soft cotton cloth. If it looks good, wax with a quality hard wax and you are done.

16. Tip for applying wax. If you are using a quality Carnauba based wax, try applying it with your fingers instead of a pad or cloth. Hold your fingers together and use your fingertips as an applicator pad. The tactile feedback from your fingers will tell you when the wax has been worked into the paint. If grit should lodge under your fingers, you will know immediately and not grind it into the paint. A pad will not allow this tactile feedback and these devil grits become sandpaper. A circular motion of the pad will make a 360-degree swirl mark. All marks on paint are most visible at a 90 degree viewing angle. Thus the front to back marks are most visible from the sides, whereas a circle stands out from any viewing angle.

The question was also asked if clear touchup should be used as a final coat to repair chips on clear coat

paint. There are two viewpoints to this question. The purist will say yes, the paint has a clear coat and thus, the repair should also. The process is the same as previously described, except the clear coat is substituted for the last 2-3 coats or paint. The practical world says no. The touchup paint is different from the original paint and is formulated only as a touchup paint. Once it is applied it should, according to the manufacturer, match well enough to be all but invisible. I have found this to be the case with the numerous repairs on the many cars/colors, I have completed. If you are using the original paint as a touchup (I have not done this with a clear coated car), then my understanding is that you should use the clear as a topcoat. The color coat of some paints will many times be relatively dull in appearance. These paints rely on the clear coat to provide the "shine." Try one chip in an area that is not that visible. If the process works, then continue with the rest. If not try the clear coat top layer.

If you have any questions or if you need any further information, please feel free to contact us.

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