

IS THERE ANY BONDO IN IT? (Lead vs Polyester Filler)

By Kim Pierce



It is a very, very rare occasion (like never) that I see a car under restoration that doesn't need some sort of body work that requires filler. From the beginning of car body manufacture there has been a need for fillers of some kind. Prior to the mid 50's that filler of choice was lead. The metal to be repaired was acid treated and the metal was heated and tinned (a light layer of solder) so the lead would adhere and then spread out with a paddle using heat to melt the lead. After that process it was filed and sanded to the proper shape. The next step would be primer followed with spot putty to fill any minor defects. Next, the panel would be block sanded to match the panel shape required. More coats of primer would be sprayed and block sanded again to achieve the base for topcoats to be applied. The problems with lead are numerous. The acid to prep for tinning is not only very toxic but stays on the metal and later works itself through to the topcoats of paint causing obvious signs of repair. The lead itself has a certain amount of acid in it also which works its way to the surface over time. The next is the toxicity of lead that the medical community has identified as poisonous. If you look at an unrestored car or an older restoration chances are high that you can see where lead was used.

In 1955 Bondo was invented in Miami, Florida by Robert Merton Spink. Bondo is a term commonly used to describe any type of repair

putty. The word Bondo actually is a trademarked name of a product from 3M. The product at that time was much different than it is now. When it was first invented it would dry very brittle, with that came problems of cracking. The polyester materials available now and the repair techniques have come a long way. Properly done it will give long lasting results that won't come with the problems associated with lead. As with any type of material used for filling the metal needs to be ready for this step. In the case of new metal make sure it is in the desired form and any holes or gaps are repaired by welding. If a screw puller has been used those holes MUST be welded. A screw puller is the old method of pulling out minor dents. You would drill a hole at the dent, screw in the slide hammer with a screw attached and pull the dent out. That method leaves a hole in the metal that was filled with Bondo. If not welded moisture will enter from behind the panel and create a spot for rust to start. Improper repair and preparation of the metal before application is the root of most all problems relating to filler failure. When the panel is ready for filler the metal must be etched with metal prep (POR 15 product or equivalent) and rinsed with clean water and completely dried. The next step is to apply a coat of non sanding epoxy primer (PPG DP epoxy primer or equivalent). When the epoxy primer has dried as per the manufacturers specs, then it is

ready to fill. Mix the polyester filler (used to be referred to as Bondo) and spread over the area to be worked. If the entire body has been reworked there will be hammer marks where that has taken place along with other imperfections in the metal. In a lot of cases a skim coat could be required over the entire body. Now it is time to do a lot of sanding. Using the appropriate shaped sanding block for the surface to be shaped to, sand with 40 to 80 grit sandpaper. Multiple coats of filler may need to be applied to get the desired shape. Once the desired shape is achieved, go to a finer sandpaper, probably 180 grit and use the same blocks to keep the shaping you have achieved. The next step requires the entire surface to be vacuumed and blown off to remove all sanding dust. Another coat or coats of epoxy primer (PPG DP) is then applied. After proper cure it is time to prime with a two part high build primer. At this point the body work is completed and the project moves to the next step: the refinish process.

With the proper use of today's materials polyester filler is a much easier product to use with longer lasting results than lead. The next time someone asks "is there any Bondo in your car" you can give the long answer.

All information and product usage was verified to be correct by Wesco Autobody Supply's PPG trained representatives.

