

Ask Jon Eakes

Plastic repair and replacement -- Three good products

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MOLDABLE PLASTIC -- RESUABLE

Utile Plast is a great British product that I stumbled upon -- plastic granules that you put into very hot water - they soften - then you mold them into anything you want. You can shove the soft plastic into a nut and when cool you have a plastic bolt -- or form them around a bolt and you have a plastic nut. It turns transparent when it is hot enough to mold – white when it is cool and as hard as a strong plastic without being too brittle.

You can replace or strengthen any plastic part from toys to tools. The only real limitations are that it will not stick to anything, although it can be glued, and it is re-usable, which means that if it gets hot, it gets soft. You cannot repair anything that can get really hot. It works much like an epoxy putty, although not quite as hard and brittle and it can be heated and reworked. A British product that is sometimes hard to find in Canada, but today- 2016 – you can get it from [Utile Plast.com](http://UtilePlast.com) in BC.

LIQUID PLASTIC HARDENED WITH UV LIGHT

In 2016 the television marketers are all talking about the new Bondic – and of course we must ask, is it really good? This is basically the same type of chemistry that the dentist uses, fillers that are UV cured. Although it will stick to most plastics, it is most effective when used as a filler or a wrap-around, like the Utile Plast. It is very interesting that they really want to make the point, this is not a glue – their website is even named www.NotAGlue.com. The reason it is not considered a glue, although it sticks well to things, is that it must be applied in very thin lines or layers, 1-1.5 mm maximum, and then immediately shine the UV light onto and through the transparent plastic. If the light can't get to all of the liquid, it will not cure. If you put it between two materials, you cannot shine the UV light on all the liquid and it will not harden. So consider it a great filler or wrap. Actually it works much like the new plastic printers. You lay out a thin line, cure it, lay another on top, cure it, and keep going. Since it cures in 5 seconds, you can actually move along quite quickly.

Being a glutton for punishment, I decided to see if I could replace a missing piece of a plastic hub cap, broken off and lost last winter. I have two inches of plastic here, built one millimeter at a time. The broken crack is repaired with a thick application of Wet Bond on the back side, a flexible epoxy that is about the strongest plastic repair I have found where looks don't matter. At the end of this winter I will come back and report on how it held up.

THE POWDER AND SOLVENT REPAIR – PLASTIC STRONGER THAN NEW

Plastex is far more difficult to work with than either of the two above, as you have to either: put powder on cleaned and roughened plastic and then drip a solvent on it; or use a supplied eye dropper and suspend a drop on the end of the dropper, dip it in the plastic powder and carry it to the repair. For super strength over surfaces, you do this through a fiberglass mesh, which ends up in the middle of the new sheet of plastic. I must admit that this product takes a lot of practice. But once you get the hang of it there are great advantages. It is a true repair, not just a patch. It contains graphite carbon fibers which gives it exceptional strength and high heat resistance. In fact it was originally designed for repairing plastic trim on Harley Davidson motorcycles. Standard is black and white, but you can

get and mix all kinds of colours to match absolutely anything.

The solvent is very strong and even proves to be a problem in shipping, requiring ground shipment. But that strong solvent is what actually fuses the new plastic construction to be as strong or stronger than the original plastic and totally bound to it.

The kit comes with a heat sensitive molding bar. You heat the molding bar and then press a good part into it and let it cool. Since the cool bar is rubbery and flexible, you can peel it off of complicated shapes. Then fit this mold onto the item that is missing a tab or a catch shelf or a handle – a perfect fit. Fill the mold with power and solvent and once it sets you peel off the mould and you have a perfect replacement already installed, usually without need for scraping and drilling.

The company is having problems getting and keeping Canadian distribution but they do ship to Canada from the head office in Nevada.

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