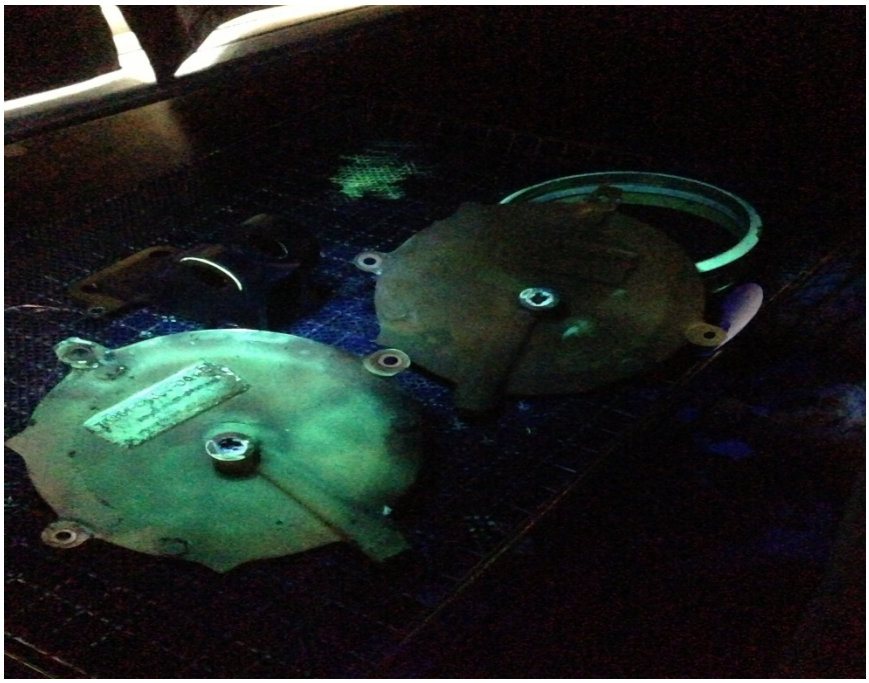
Presents

Polyplus Prime

A Dye Penetrant friendly

Plastic Media Abrasive

By Vincent M Librizzo



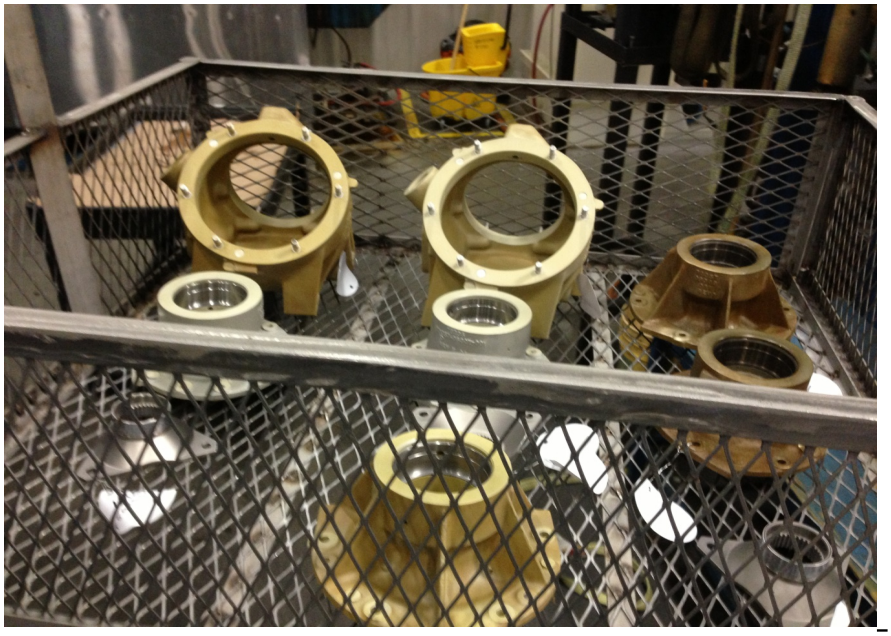
Welcome to the world of engineered plastic media. Polyplus Prime was engineered to address the problems related with Dye Penetrant testing. This document address's the problems and the solution to being able to strip aircraft parts with plastic media that are going to be dye penetrant tested.

Type II plastic media is made from scrap plastic urea purchased in the market place. The scrap is tested to make sure that it is of good stock before it is purchased. When urea is made for different types of products it is made with urea resin, binders and fillers. It is the filler that leaves the residue behind when stripping. The industry using this product does not have any problems processing the substrates they strip with Polyplus plastic media; in fact they love the product. Only when it comes to dye penetrant testing does a problem arise. As stated above it is the filler in urea that leaves a residue on the surface of the substrate you are stripping. This residue does not wash off when put into the cleaning process between stripping and dye penetrant.

Several years ago we received calls from our customers who were having problems with their parts glowing under a black light which made it difficult for them to read the parts for cracks because of the glowing back round. US Technology stepped up and decided we would try to find a solution to the problem, thus Polyplus Prime was created. We make Polyplus Prime from virgin urea resin with no fillers. The result is no residue is left behind when stripping any surface.

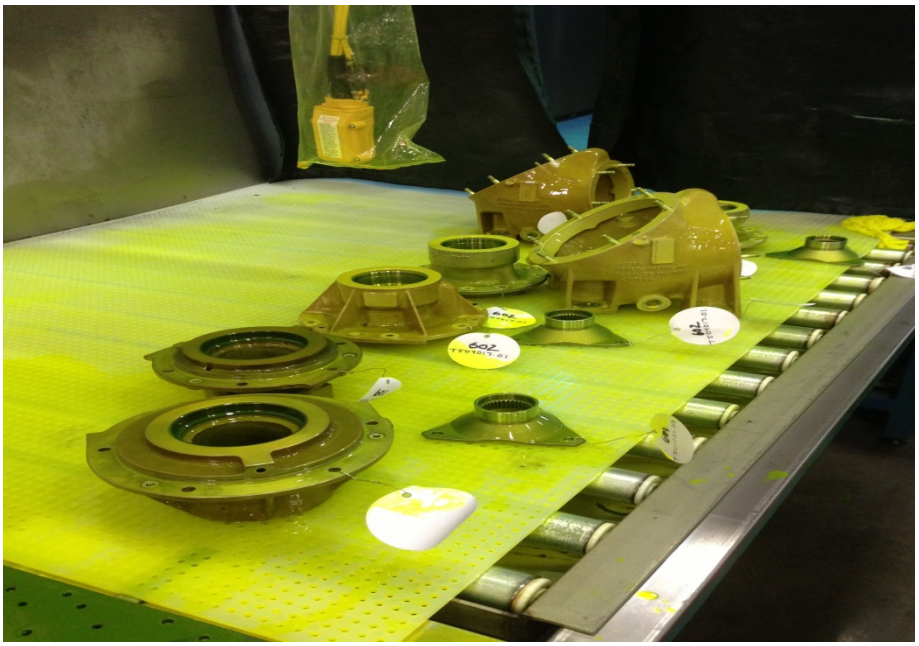
The picture on the front page shows two of the same aircraft parts. The part on the left was stripped with type II 20-30 Mil-spec plastic media. The part on the right was stripped with Polyplus Prime type II 20-30 Mil-Spec plastic media. The difference between the two is the part on the left when stripped left behind a residue on the surface which does not come off when put through a wash cycle to clean the part after stripping it. This results in the residue on the part absorbing the dye which does not wash off during the rinse after the part has been stripped.

The parts below were stripped with type II plastic media.



After going through the wash cycle they are sent to dye penetrant.

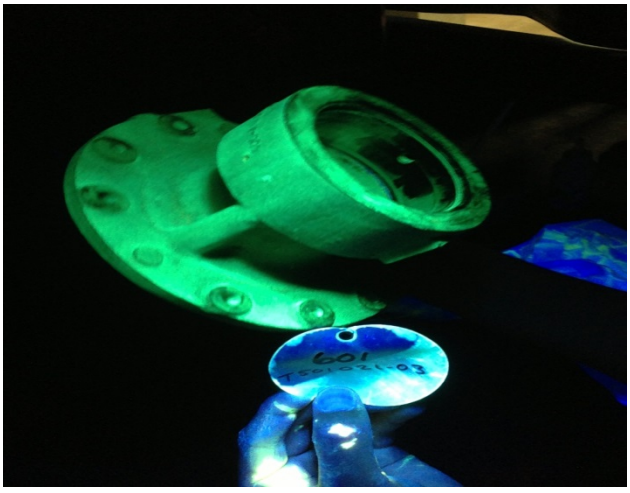
When they get to dye penetrate they are dipped in dye penetrant.



When the time set is up they are rinsed off and then put in a dryer.

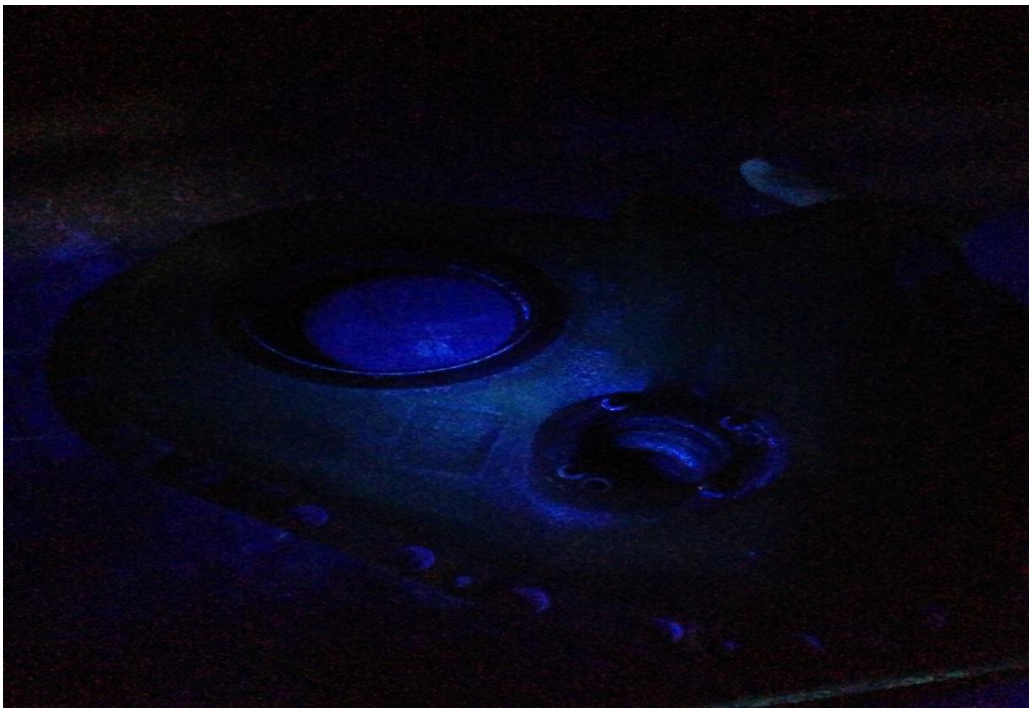
After they are dried they are put under a black light for inspection.

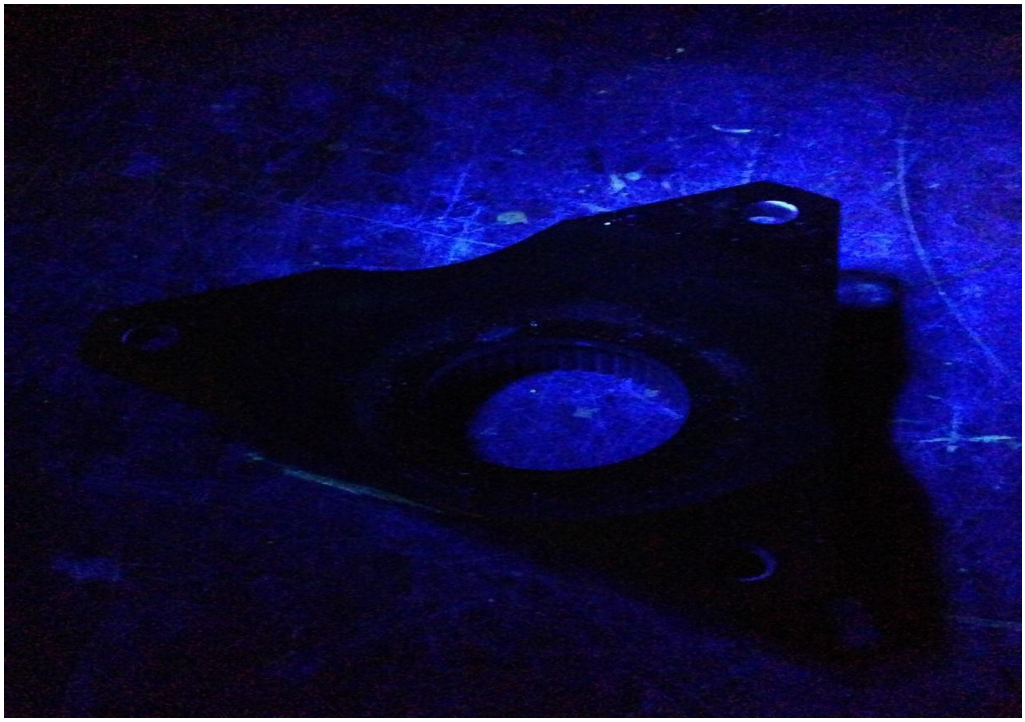
The result is glowing parts which are difficult to impossible to read.

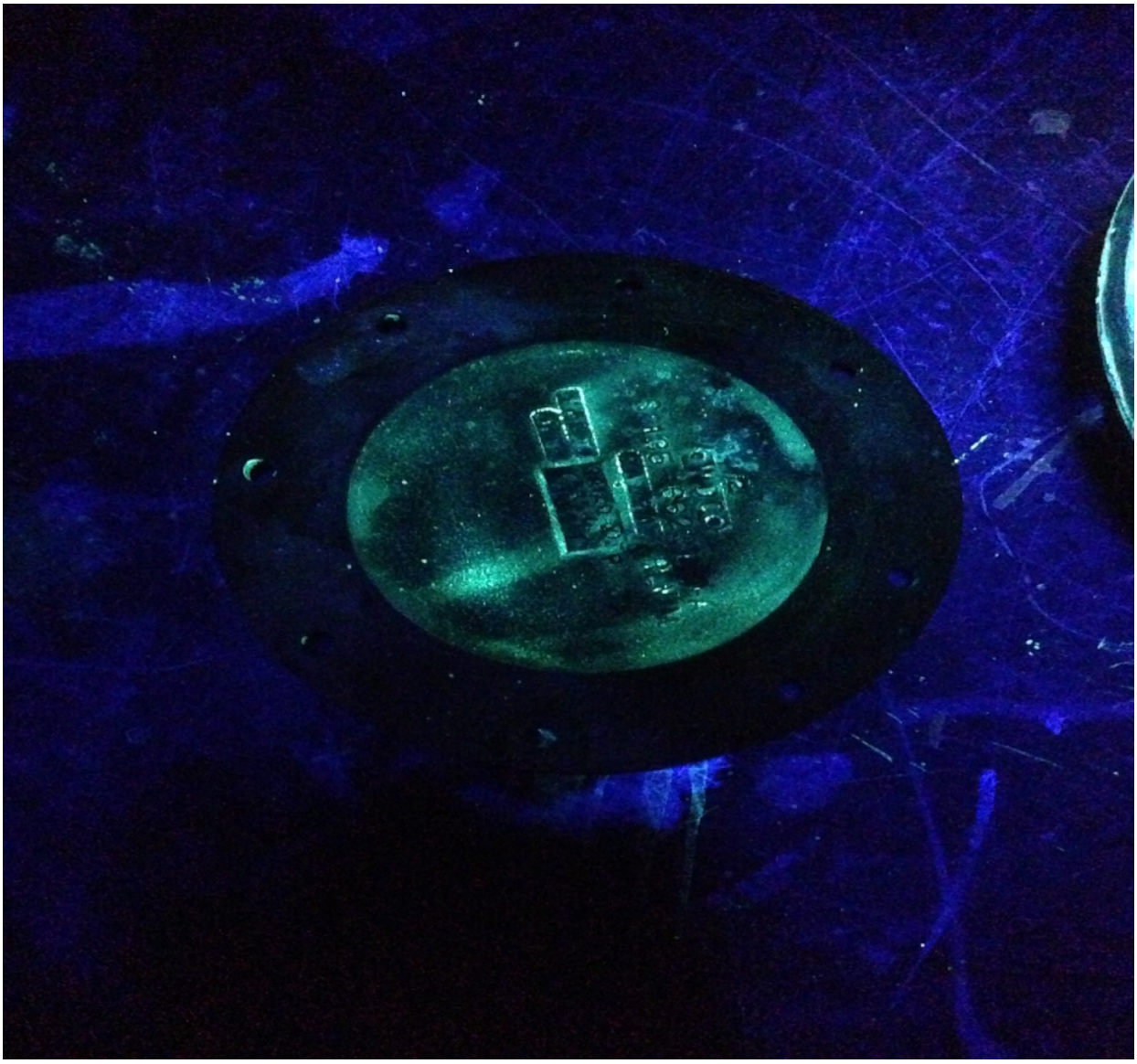


These parts cannot be read properly so a solution was needed to correct the problem.

Polyplus Prime is the tested solution and has been in use for several years. The process prameters remain the same and only the media has been changed. The results under a black light are shown below in several photo.







POLYPLUS PRIME® leaves no residue behind. The result is a readable part. US Technology Media is the only company that manufactures this material and there are no equals for this material.

Information about this material is available through US Technology Media.