

Technical Tips

Many builders express concern over the mixing and application of "Proseal" during the building process.

The use of this product can be made a lot easier by adhering to a few basic rules.

1. Proseal can be mixed in smaller batches by volume and still provide proper cure rates and properties.
2. Proseal has a thermal exponential cure rate. In other words temperature greatly effects the cure rate of the product.
3. Proseal is a catalyst accelerated cure product like most epoxies and resin products.



When mixing Proseal in smaller amounts up to 40 or 80 cc by volume we use large syringes available at most agricultural and veterinary outlets. This process insures that the Proseal is accurately measured and easy to handle and apply. The accompanying photo's show that by cutting off the ends of two syringes so just an open cylinder is left on the end of the syringe it can then be used to accurately suck up measured amounts of the base and catalyst. Using the 10-1 base to catalyst ratio 2cc of catalyst for 20cc of base. Two syringes must be used to prevent cross contamination of the products A & B components.

After the measured components are mixed thoroughly on a flat plate for at least one full minute they are then loaded in to the plunger end of a third so called

application syringe. This is usually done with a oil artists knife or spatula. Once it is in the application

syringe you can apply it exactly where you need it and just the right amount of it. A small 1" diameter fine felt paint roller or heavy brush can then be used to uniformly spread it on surfaces. Buying the 3" long by 1" diameter paint rollers and cutting them in to 3 separate 1" X 1" paint rollers works well. Use a small tube to take up the slack in the paint roller reel. You can rapidly measure, mix, and apply Proseal by doing it this way and there will be hardly any waste product or expense to contend with after.



Proseal's cure rate increases by a factor of 2 for every 10 degrees f. above 70 degrees and is retarded by the same factor for every 10 f. degrees below 70 degrees. This means a cure of 12 hrs at 70 degrees will occur in only 6 hrs at 80 degrees and only 3hrs at 90 degrees. The same process on the cold end of the scale means Proseal will take about 24 hrs to cure at 60 degrees and 48 hrs or longer at 50 degrees. These figures will fluctuate with mixture ratios and humidity but are a good base line to follow.



Although Proseal is a catalyst accelerated cure product. The catalyst will not self disperse within the base as does something more familiar such as fiber glass resin catalyst. Because of this a single drop of catalyst in fiber glass resin will cause the whole base to cure even if its not stirred or mixed. This is not the case with Proseal and it must be mixed extra well to insure a uniform and consistent cure. This is not difficult to do but does require some extra effort on the users part.

If you find that the fit of some your components leaves a little to much gap for the Proseal to comfortably span you can fix this problem also.

Mix a little angle hair (long strand fiberglass wool) in to the Proseal and stir it up, emulsifying the angel hair in to the Proseal . The result is a fiberglass reinforced Proseal barrier which is very strong .



NOTE: Do not mix angle hair into all of the Proseal as it does cause some loss of elasticity. The fiber glass strands although flexible are not stretchable.

With a little bit of fooling around you will quickly find that Proseal is a blessing to work with and not the horrible stuff its made out to be. In addition to sealing fuel tanks it has many other applications but its price makes them prohibitive.

Many builders didn't like the idea of fiber glass work either until they found out just how easy it can be to work with once your familiar with the product and its handling.



1/4" opening for applying a proseal bead with out a mess .



Using a putty knife or other device force the mixed proseal in the plunger end of the syringe and replace the plunger. This will allow you to apply the proseal in a controlled fashion.



base syringe "B" this will be the white stuff when using proseal.

activator syringe "A" this will be the black stuff.

Application syringe to apply the mixed proseal where you want it and not every where else. This syringe is loaded from the top end.

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