

Central States Association

A Product of Creative Minds

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tory will be denied to future visitors.

The scenery is spectacular in this park and is easily accessible on Going to the Sun Highway. Be sure to see Wild Goose Island and take the hike toward the base of the glacier at the visitor center. The severe environment allows little annual growth. Small tundra plants are hundreds of years old.

Departure westbound from Glacier took us through more mountains to eastern Washington's dry flat center. We crossed the spiny Cascade Mountains at Steven's Pass and came out the west side on top of low cloud. The cool moist air had blown up against the west side of the mountains and formed upslope fog. Fortunately the fog extended only a few miles west of the mountains. It was magnificent to see the sharp mountain peaks stick up through the cotton smooth foggy valleys.

We took a day trip to Deception Bay, a link to Puget Sound. The tide, the current and the intersecting waterways cause wildly exciting water conditions. It is a challenge for boaters and an adventure for kayakers. Many colorful kayaks were seen attempting the passage. The beautiful mushroom islands and the lush foliage make it a wonderful place to hike or just lean against a log and read.

All too soon it was time to head home. Sheridan, WY was a perfect overnight stop. There are plenty of friendly EZ drivers and enthusiasts at the airport and the Holiday Inn has delicious food.

The following day we arrived home, having successfully crossed the country again. EZs are superb cross country flying carpets!

Parts For Sale

62-66 Multi-laminate prop SAE-1 \$350, two ACS spinners 15" long and 17" long \$75 each, Sport Flight exhaust for 0-235 with muffs \$150, 5" long SAE-1 prop extension w/crush plate \$250. Call Frank Nowak 1 401 253 1978 or msquick@msn.

Best Fuel Tank Epoxy <Canard.Com>

Gary Hunter (TX) - All the suppliers claim their "structural resins" are suitable for fuel containment. And, they are - IF - the builder knows how and does everything correctly. I have always been adamant about "post curing" epoxies, especially the fuel tank. You can't buy cheaper insurance.

Safe-T-Poxy I or now EZ-Poxy 87 is probably by far the best in this category, with or without a post cure. Chemical resistance is one of the prime attributes of epoxies beyond homebuilding airplanes. They are used for building fiberglass chemical storage tanks and piping and for lining of steel tanks to prevent corrosion. In that industry the curing agent "type" governs the degree of chemical resistance. Aromatic amines are by far the best known curing agent type for overall chemical resistance - particularly in fuels, solvents and strong acids. EZ-Poxy 87 is the only aromatic amine curing agent available to the homebuilt world.

Next in line are "aliphatic amines". The original RAES & RAEF were "modified" aliphatic amines. However, according to my tests, the RAES without a post cure was absolutely no good for fuel and marginal with. But, the RAEF without a post cure was marginal and did just fine with a post cure. Thus, the original Vari-Eze plans mandated RAEF for the fuel tables.

I can show you immersion test data on a variety of resins and curing agent combinations tested in acids, bases, solvents, solvent / alcohol blends, and water. The data is very conclusive. A POST CURE will provide significantly enhanced chemical resistance. Especially, for curing agents based on "cycloaliphatic amines", like MGS, Aeropoxy and Proset.

Next in line are "cycloaliphatic" amines. Aeropoxy, MGS, Proset, and EZ-Poxy 83 & 84 are "blends of modified aliphatic and cycloaliphatic issue 56 page 29

amine adducts". Modified - because the straight stuff has bad cure behavior. Some modifications work out better than others. A prime example is the Aeropoxy's sensitivity to temperature and moisture. I call these "quirky cure characteristics". However, even the "quirkiest" of these curing agents will resist fuel - IF - they are properly applied and fully post cured.

DO NOT simply brush the resin on the inside surface of the already cured fuel tank and expect it to cure like a 2 or 4 ply lay-up. This is where the screen plugging flakes of epoxy come from.

Your original layups for all the inside tank components should be "wet" so to be certain there are no dry spots, pinholes or voids. This is no place to be too concerned about weight. Even the BID tapes in the corners should be nice and wet. Peel ply only were secondary bonds will be needed. For those of you that like the smooth surface given by the peel ply proicess add an extra final ply of a fine weave light weight fiberglass deck cloth. It will give you a similar smooth surface without introducing or hiding voids. Warm shop temperatures and low humidity will reduce the curing agents "quirk" factor.

There are many ways to obtain a post cure on the tank. Before the tops are put on, you can use heat lamps to cure the inside surfaces. You can pre-post cure the inside surface of the top too. After the top is bonded in place you can post cure these bonds by heating the exterior surface with heat lamps. The heat will work its way to the bonds.

OR, after the top of the tank is bonded on, you can circulate warm air through the tank for several hours. I did this with the outlet end of my vacuum cleaner inserted into the fuel cap opening. About 140F is sufficient

RULE OF THUMB - If you can hold your hand on the surface to the count of 10 - the temperature is 140F or below.