ATL®
AERO TEC LABORATORIES

IMPORTANT INFORMATION ON ATL "FLUOROCELL"™ BLADDER TANKS

ATL's "FluoroCell" coated-fabrics have created a whole new technology in safety fuel cell containment of combustible liquids and especially flammable fuels.

With these benefits however, come a new set of responsibilities as well.

On the "advantages" side of the ledger are these facets of FluoroCell bladder tanks:

a) Unmatched resistance to gasoline; diesel; biofuels E10 and E85; jet fuels JP5, JP8, Jet-A/B, missile fuel JP10; bio-butanol; 100% methanol; 100% ethanol; petroleum oils and grease.

b) Undetectable fuel "diffusion" or "permeation" per Mil-DTL-6396F (.000 fluid oz./sq.ft./24 hrs.) Suppresses fuel vapor odors while protecting the environment from added carbon emissions.

c) Ultra-high puncture resistance, tear strength and tensile properties derived from a specially-developed woven Kevlar® "aramid" fabric backbone. Crashworthy level FIA/FT3.5-1999.

d) Remarkable "inertness" allows FluoroCells to better resist higher and lower temperatures, UV exposure, humidity, sparking, fungus, algae, and hydrolysis. All of these qualities typically extend the FluoroCell's average predicted life well beyond FIA requirements.

On the other side of our ledger, there are certain limitations which the FluoroCell user must observe:

a) Flexibility of FluoroCells is somewhat lower than conventional bladder tanks. This factor may require a larger access opening for installing and removing your FluoroCell on certain boats, aircraft, race cars and defense vehicles. Collapsing the FluoroCell bladder is generally limited to folding and compressing that bladder to ½ of its shortest dimension as opposed to the 2/3 compression factor of conventional bladder tanks. This consideration is important since forcing or distorting a FluoroCell through a tight access opening can crimp or scuff the Fluoropolyer and potentially create a pin-hole seep. Be cautious installing any FluoroCell bladder, and if necessary, close all ports and spread dry talcum powder over the cell to ease friction during a collapsed installation.

b) While Fluorocells resist nearly all fuels, and are immune to hydrolysis, there are certain solvents unfriendly to these fuel cells. Specifically, acetone and methyl ethyl ketone should not be applied for cleaning or other purposes.

c) FluoroCells, once installed, should be supported uniformly on all sides so as not to crimp, fold or crease any surface of that fuel cell. Uniform support will prevent distorting, abrasion, and localized stresses.

Thank you for your understanding and for applying these benefits and cautions to your own FluoroCell fuel bladder installation.

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