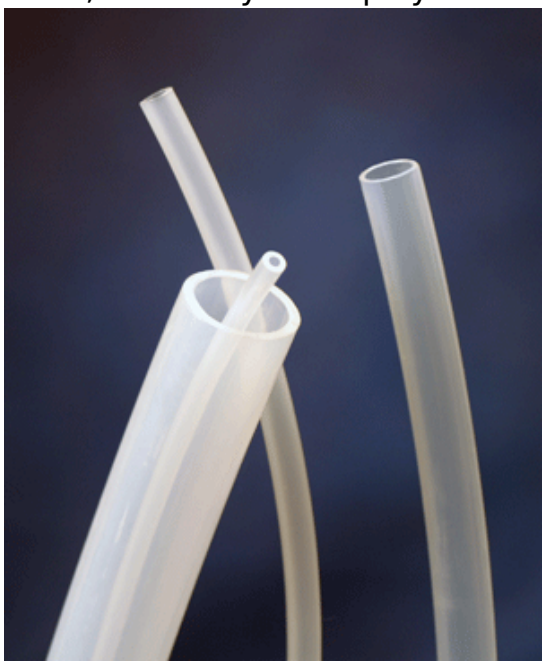
Polypropylene Offers Substitute For Fluoropolymer Tubing

Fluoropolymer tubing is used for a wide variety of applications because of its heat resistance, chemical resistance and non-stick properties, but many fluoropolymer tubing manufacturers – especially those producing



PTFE fluoropolymer – have been faced with a shortage of raw materials this year. Fluoropolymers such as PTFE, FEP, PFA, and PVDF are made using a mineral called fluorspar. Fluorspar is mined primarily in China, Mongolia, Mexico, and South Africa, with China controlling most of the world's resources.

That country's demand for fluoropolymers has surged, and China has tightened its exports of fluorspar. At the same time, the number of PTFE processing companies has dropped as some processors shifted focus. The result has been shortages and dramatic price increases. No tubing material is an exact replacement for fluoropolymer, but when it isn't available, other materials such as polypropylene provide an alternative. NewAge Industries' Prolite® polypropylene tubing offers general chemical resistance that approaches fluoropolymer.

Other properties in common between the two materials include low surface friction, excellent corrosion resistance, and high dielectric strength. Prolite also offers low moisture absorption and is lightweight, plus it's manufactured from a compound that is NSF-61 (National Sanitation Foundation) certified for drinking water applications. Additionally, Prolite is less costly than fluoropolymer tubing. Other possible substitutes for fluoropolymer include silicone for temperature resistance, flexible PVC for chemical resistance, and coextrusions, where two different tubing materials (each with its own performance characteristics) are extruded as the inner and outer layers of a hose. And because there are a few different types of fluoropolymer tubing, it may be possible to substitute one for another depending on

the application. Naturally, a material's physical properties should be evaluated carefully before choosing one as a fluoropolymer replacement.

NewAge Industries stocks Prolite polypropylene tubing in sizes ranging from 1/4" through 1-1/4" O.D. Custom options include non-stock sizes, color additives, and thermoforming. A semi-rigid product, Prolite is best joined with push-to-connect fittings such as NewAge's Newloc® style but may also be joined by welding.