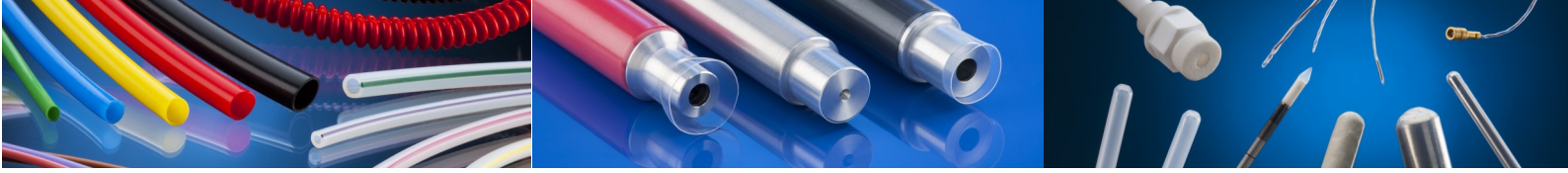

PTFE Chemical Resistance

Fluoropolymers and especially virgin PTFE have excellent physical and chemical properties. The chemical resistance is nearly overall with only a few limitations. The chemical threats to products made of PTFE could be generally summarized in the following table:

Chemical	Effect
Fluorinated hydrocarbons	Swell, reversible after short term exposure. Not reversible after long term exposure.
Alkali Metals, in solution or molten state	Elimination of Fluorine, destruction of polymer.
Halogens, elemental Fluorine, Chlorotrifluoride	Chemical reactions possible at elevated temperatures, destruction of the polymer, explosion possible.
Monomers: Such as Styrene, Butadiene and Acrylonitrile	Penetration possible, spontaneous polymerization may destroy the polymer.
High energy radiation	Gamma radiation: 10kGy dosage may already reduce physical properties by approximately 50%
Nitrating acid: Mixture of concentrated H2SO4 and HNO3	Temperature >100°C: Decomposition of the fluoropolymer possible.

IMPORTANT NOTE: The above data is intended as a guide and is taken from the resin manufacturers data. Adtech cannot take responsibility for the accuracy of the data. Customers must evaluate the material under relevant conditions, if the properties are critical to their applications.

For more information about our products and services, please visit adtech.co.uk.

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