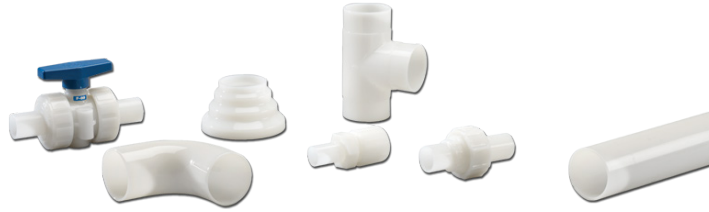


# Ultra Proline® - Halar® (ECTFE)



Halar® (ECTFE) is a thermoplastic melt processable copolymer resin in the fluoropolymer family consisting of ethylene (E) and chlorotrifluoroethylene (CTFE). Because of its excellent chemical and temperature resistance, Halar® piping systems are highly versatile and suitable for the broadest range of applications. Halar® can handle a pH from 1 to 14. Halar® does particularly well where other alternatives like expensive metal materials (titanium, alloy 20, 316/304L SS) or lined steel are being used with limited results. Halar® is used for high concentrations of acids (sulfuric acid) and highly oxidative applications like sodium hypochlorite, chlorine gas, ozone, and chlorine dioxide with great success. It is also suitable for solvents and/or high pH applications at elevated temperatures.

**Ideal applications:** High Concentration Sulfuric Acid, pH 1-14, Bleach, Strong Oxidation Agents

## Supply Range

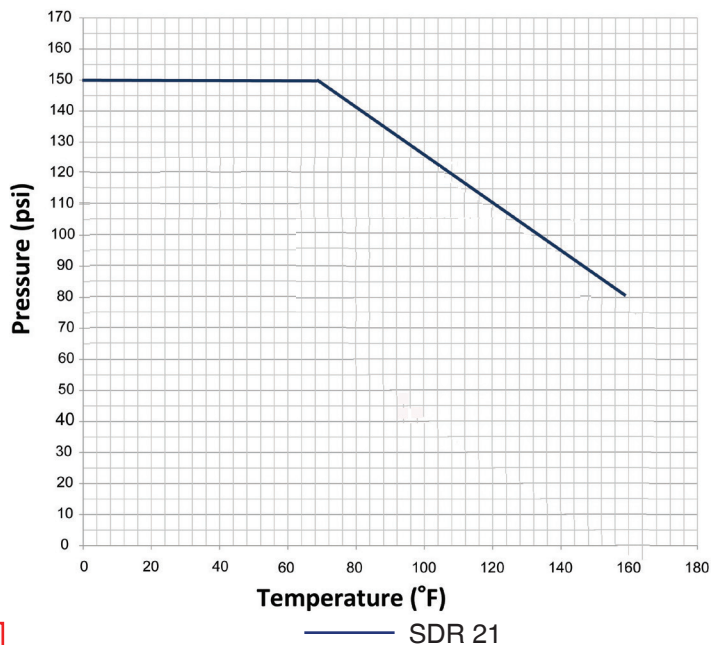
### Pipe and Fitting

- 20mm - 110mm (1/2" - 4") SDR 21, 150psi

### Valves

- Type-21 Ball Valves:  
20mm - 32mm (1/2" - 1")
- T-342 Diaphragm Valves:  
20mm - 63mm (1/2" - 2")
- Frank Series Regulating Valves:  
20mm - 63mm (1/2" - 2")

## Pressure Rating

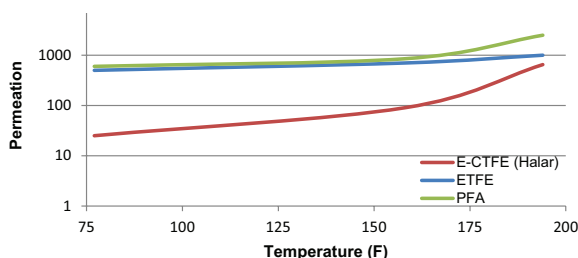


### Welding Method



## Resins

Permeation of Cl<sub>2</sub>



Ultra Proline® provides technical benefits as well as cost savings over traditional PFA systems and is less permeable than PFA.

Asahi/America's Ultra Proline® piping system is manufactured by AGRU of Austria from Solvay's Halar® resin (ECTFE).

ECTFE is one of the most chemically resistant plastics available.

