

PCTFE (Polychlorotrifluoroethylene)

PCTFE is a homopolymer of chlorotrifluoroethylene. Features of PCTFE include high compressive strength and low deformation under load. In particular, its cold flow characteristic is lower than other fluoropolymers and it does not deform under load at room temperature. PCTFE has extremely low gas permeability and essentially does not absorb moisture.

PCTFE is known by the trade name of Kel-F® 81. This was produced by 3M but has been discontinued since December of 1995. Currently, PCTFE resin is produced by Daikin, under the trade name Neoflon®.

Specifications:

ASTM D-1430-95 TYPE 1, GRADE 3; AMS 3650 (except 3.2) FDA Reg. 21-CFR-177.2600.

Property	ASTM Test Method	Units	PCTFE
Physical			
Specific Gravity	D792		2.12
Water Absorbtion	D570	%	<0.00
Mechanical			
Tensile Strength	D1708	psi	5,000
Elongation	D1708	%	150
Hardness-Durometer	D2240	Shore D	80
Thermal			
Melting Point	D3418	°F	410
Upper Service Temperature (20,000 h)	UL746B	°F	248
Flammability	UL94		V-0

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.