



EN- 007-02022
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 DATE: 08-06-07

Engineering Note

SUBJECT: PFA/PVDF PNEUMATIC TUBING (CHEMICAL COMPATIBILITY)

CHEMICAL COMPATIBILITY OF TUBING

CICOIL tubing used in our motions series cable is compatible with almost all chemicals, bases or acids. See the chart below:

Chemical Compatibility of PFA and PVDF Tubing

Key to Ratings		Key to Numbers				
A	<i>No Effect</i> —Excellent chemical resistance. No performance degradation.	1	Wet or dry, up to 212° F	5	Up to 170° F	
B	<i>Moderate Effect</i> —Some chemical resistance. Some performance degradation. Shortening of product life.	2	At 50% concentration	6	Up to 200° F	
C	<i>Not Recommended</i> —Questionable resistance. Do not use.	3	Up to 100° F	7	Up to 230° F	
D	<i>Information Not Available</i> —No information available for this item.	4	Up to 140° F			
	Crack-Resistant Tubing Made with Teflon® PFA (Inch Sizes)	Crack-Resistant Tubing Made with Teflon® PFA (Metric Sizes)	Extreme-Purity Clear PFA Tubing	Ultra Clear PFA Tubing	3-A Sanitary White PVDF Tubing (Inch Sizes)	3-A Sanitary White PVDF Tubing (Metric Sizes)
Acetic Acid 10% in Water	A	A	A	A	A (6)	A (6)
Acetic Acid 30% in Water	A	A	A	A	A (6)	A (6)
Acetone	A	A	A	B	C	C
Chlorine	A	A	A (1)	A	A	A
Deionized Water	A	A	A	A	A	A
Diesel Fuel	A	A	A	A	A (7)	A (7)
Ethylene Glycol	A	A	A	A	A (7)	A (7)
Fuel Oil	A	A	A	A	A (7)	A (7)
Gasoline	A	A	A	A	A	A (7)
Hydraulic Fluid	A	A	A	A	A (7)	A (7)
Hydrochloric Acid 10% in Water	A	A	A	A	A (7)	A (7)
Hydrochloric Acid 30% in Water	A	A	A	A	A (7)	A (7)
Hydrogen Peroxide 10% in Water	A	A	A	A	A (5)	A (5)
Hydrogen Peroxide 30% in Water	A	A	A	A	A (6)	A (6)
Isopropyl Alcohol	A	A	A	A	A (4)	A (4)
Lacquer Solvents	A	A	A	A	D	D
Methanol (Methyl Alcohol)	A	A	A	A	A (7)	A (7)
Methyl Ethyl Ketone (MEK)	A	A	A	A	C	C
Nitric Acid	A (2)	A	A	A (2)	A	A
Phosphoric Acid 25% in Water	A	A	A	A	A (7)	A (7)
Phosphoric Acid 85% in Water	A	A	A	A	A (7)	A (7)
Sodium Hydroxide 10% in Water	A	A	A	A	A (3)	A (3)
Sodium Hydroxide 30% in Water	A	A	A	A	C	C
Sodium Hypochlorite (Bleach)	A	A	D	A	A (6)	A (6)
Sulfuric Acid 10% in Water	A	A	A	A	A (7)	A (7)
Sulfuric Acid 30% in Water	A	A	A	A	A (7)	A (7)
Synthetic Oil	A	D	A	A	A	A