

ALTAFLUOR® 480 UHP PFA

ALTAFLUOR® 480 UHP PFA (ultra high purity perfluoroalkoxy) is the product of choice for applications involving extreme chemical resistance combined with high purity requirements. Although HP PFA is available in a variety of resin grades, ALTAFLUOR® 480 UHP PFA tubing is made exclusively from a high molecular weight, high purity resin that provides excellent chemical resistance, (even to common fluorosurfactants), highest purity levels, low permeation levels and smoothest surface finish. Unlike standard HP PFA tubing products, ALTAFLUOR® 480 Series UHP PFA has superior flex life values comparable to those of PTFE. ALTAFLUOR® 480 UHP PFA tubing is ideal for use with flare or conventional fittings.

ALTAFLUOR® 480 FEATURES

- Exclusive use of Daikin AP-231SH UHP PFA Semi -F57 approved resin
- 100% virgin grade high performance resins used to resist stress cracking
- Chemically inert to nearly all industrial chemicals and solvents
- Highest thermal stability
- Lowest permeation (even with aggressive chemicals such as HCL)
- Translucent
- Smoothest surface finish resulting in less area of particle entrapment
- Moisture absorption nearly zero
- FDA compliant for food contact
- Non-flammable
- Suitable for use with flare or conventional fittings
- Available in coiled hose and convoluted constructions
- Superior resistance to common fluorosurfactants vs. other PFA and HP PFA
- Greatest flex life values compared with other PFA and HP PFA materials

APPLICATIONS

- Semiconductor
- Chemical process
- Heat exchangers
- Laboratory applications
- Flow monitoring
- Pharmaceutical

SPECIFICATIONS

General: Meets or exceeds the requirements listed in ASTM D 6867-03

Temperature: -320 °F to 500 °F

Flammability: UL 94 VO rated. UHP PFA resists combustion and does not promote flame spread

FDA: UHP PFA is approved for use in food contact applications in compliance with FDA regulation: 21 CFR 177.1550

USP CLASS VI: ALTAFLUOR® meets the requirements of USP Class VI

NSF: ALTAFLUOR® 480 UHP PFA tubing is certified to NSF 51, NSF 61 and NSF 372



This ALTAFLUOR® 480 UHP PFA has been tested and certified by WQA against NSF/ANSI 51, NSF/ANSI 61 to Commercial Hot (180° F/82° C), and NSF/ANSI 372 for lead free compliance.

ALTAFLUOR® 480 UHP PFA - TUBING

PART NUMBER	ID	OD	+/-	WALL	+/-
480-0125-030-OC	1/16	1/8	.004	0.030	.003
480-0250-030-OC	3/16	1/4	.004	0.030	.003
480-0250-040-OC	.170	1/4	.004	0.040	.003
480-0250-047-OC	.156	1/4	.004	0.047	.003
480-0250-062-OC	1/8	1/4	.005	0.062	.003
480-0375-062-OC	1/4	3/8	.005	0.062	.003
480-0500-062-OC	3/8	1/2	.005	0.062	.003
480-0750-062-OC	5/8	3/4	.005	0.062	.003
480-1000-062-OC	7/8	1	.005	0.062	.003
480-1250-075-OC	1.100	1.250	.008	0.075	.003
METRIC SIZES	ID	OD	+/-	WALL	+/-
480-0157-040-OC	2mm	4mm	.005	1mm	.003
	.078	.157	.005	0.040	.003
480-0236-040-OC	4mm	6mm	.005	1mm	.003
	.157	.236	.005	0.040	.003
480-0315-040-OC	6mm	8mm	.005	1mm	.003
	.236	.315	.005	0.040	.003
480-0394-040-OC	8mm	10mm	.005	1mm	.003
	.315	.394	.005	0.040	.003
480-0472-040-OC	10mm	12mm	.005	1mm	.003
	.394	.472	.005	0.040	.003

Additional sizes up to 4" OD available upon request. Please contact Altaflo office for details.

Available in natural color only. For pigmented items, see ALTAFLUOR® 400 series.

Tested and meets requirements of Semi F-57 and Semi F-90. Test results available upon request.



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ALTAFLUOR® 480 PFA

Due to the nature of applications involving the use of fluoropolymers, we suggest that all customers test product within the conditions specific to their application prior to use.

ALTAFLUOR® 480 PFA - BEND RADIUS AND WORKING PRESSURE CHART

PART NUMBER	OD	WALL	ID	BEND RADIUS	WORKING PRESSURE @ 73°F
480-0125-030-OC	0.125	0.030	0.062	1/2"	451
480-0250-030-OC	0.250	0.030	0.188	1"	226
480-0250-040-OC	0.250	0.040	0.170	1"	301
480-0250-047-OC	0.250	0.047	0.157	3/4"	353
480-0250-062-OC	0.250	0.062	0.125	1/2"	466
480-0375-062-OC	0.375	0.062	0.250	1"	311
480-0500-062-OC	0.500	0.062	0.375	2"	233
480-0750-062-OC	0.750	0.062	0.625	6"	155
480-1000-062-OC	1.000	0.062	0.875	22"	117
480-1250-075-OC	1.250	0.075	1.100	25"	75
METRIC SIZES	OD	WALL	ID	BEND RADIUS	WORKING PRESSURE @ 73°F
480-0236-040-OC	0.236	0.040	0.157	1-3/4"	313
	6mm	1mm	4mm		
480-0315-040-OC	0.315	0.040	0.236	2-1/2"	235
	8mm	1mm	6mm		
480-0394-040-OC	0.394	0.040	0.315	2-3/4"	188
	10mm	1mm	8mm		

The above information is based on tests performed at 73° F and can vary in individual applications based on parameters such as temperature, chemical concentration, pressure, etc. Please consult factory for details. For an estimate on burst pressure at ambient temperature we consider a 3:1 ratio when exposure temperature is 73° F. However Altaflo does not recommend exceeding the suggested Working Pressure listed. Additional sizes up to 2" are available.

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ALTAFLUOR® 480 SERIES PFA - PHYSICAL PROPERTIES

PHYSICAL PROPERTY	ASTM TEST METHOD	UNITS	VALUES
Upper Service Temp.			500° F
Specific Gravity	D 792		2.15
Tensile Strength	D 1708	PSI	4500
Elongation	D 638	%	400
Flex Modulus	D 790	PSI	90,000
MIT Flex Life	D 2176		1,750,000
Hardness	D 2240	Shore D	60

The above information is based on tests performed at 73° F and can vary in individual applications based on parameters such as temperature, chemical concentration, pressure, etc. Please consult factory for details.

NOTE: The values represented above are based on the use of 100% virgin grade high performance - low melt flow PFA resin as used in the production of ALTAFLUOR® 480 Series Tubing. When comparing data it is critical that performance values are listed for the grade of resin used.



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ALTAFLUOR® 480 UHP PFA - TUBING SCHEDULE 40 PIPE

PART NUMBER	NOMINAL SIZE	ACTUAL SIZE	WALL
480-0540-088-0C	1/4"	.540" ± .010	.088" ± .020, -0
480-0840-109-0C	1/2"	.840" ± .010	.109" ± .020, -0
480-1050-113-0C	3/4"	1.050" ± .015	.113" ± .020, -0
480-1315-133-0C	1"	1.315" ± .015	.133" ± .020, -0
480-1660-140-0C	1-1/4"	1.660" ± .015	.140" ± .020, -0
480-1900-145-0C	1-1/2"	1.900" ± .015	.145" ± .020, -0
480-2375-154-0C	2"	2.375" ± .020	.154" ± .020, -0

ALTAFLUOR® 480 series UHP PFA schedule 40 pipe is considered custom. Minimum order requirements may apply. Standard length is 10ft but may be cut into shorter lengths for shipment if needed. For stock HP PFA schedule 40 pipe please see our ALTAFLUOR® 450 series HP PFA pipe.

ALTAFLUOR® 480 UHP PFA - STANDARD CONVOLUTED CONSTRUCTION

PART NUMBER	NOMINAL OD SIZE	ID MIN	ID MAX	OD MAX	NOMINAL WALL	CONVOLUTIONS PER INCH
48C-0375-020-0C*	3/8	0.251	0.275	0.375	0.020	6
48C-0500-023-0C*	1/2	0.364	0.375	0.500	0.023	6
48C-0625-025-0C*	5/8	0.485	0.500	0.625	0.025	5.5
48C-0750-025-0C*	3/4	0.608	0.625	0.750	0.025	5
48C-0875-025-0C*	7/8	0.730	0.750	0.875	0.025	4
48C-1000-025-0C*	1	0.860	0.875	1.000	0.025	3.5

*Custom item - please consult factory for lead time and minimum order requirements.

Available in natural color only. For pigmented items, see ALTAFLUOR® 400 series.

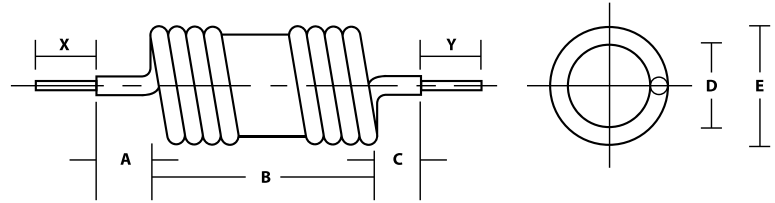
ALTAFLUOR® 480 UHP PFA - ULTRA FLEX CONVOLUTED CONSTRUCTION

PART NUMBER	NOMINAL OD SIZE	ID MIN	ID MAX	OD MAX	NOMINAL WALL	CONVOLUTIONS PER INCH
48U-0375-020-0C*	3/8	0.251	0.275	0.375	0.020	9
48U-0500-023-0C*	1/2	0.364	0.375	0.500	0.023	9
48U-0625-025-0C*	5/8	0.485	0.500	0.625	0.025	9
48U-0750-025-0C*	3/4	0.608	0.625	0.750	0.025	8
48U-0875-025-0C*	7/8	0.730	0.750	0.875	0.025	8
48U-1000-025-0C*	1	0.860	0.875	1.000	0.025	8

*Custom item - please consult factory for lead time and minimum order requirements.

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ALTAFLUOR® 480 UHP PFA - COILED HOSE



Custom item - see Coiled Hose Order Form for ordering information. Please consult factory for additional details.



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