

PEXCO

FLUOROPOLYMER TUBING

Transport Critical Fluid with Confidence

100 PTFE

200 FEP

2EO FEP

400 PFA

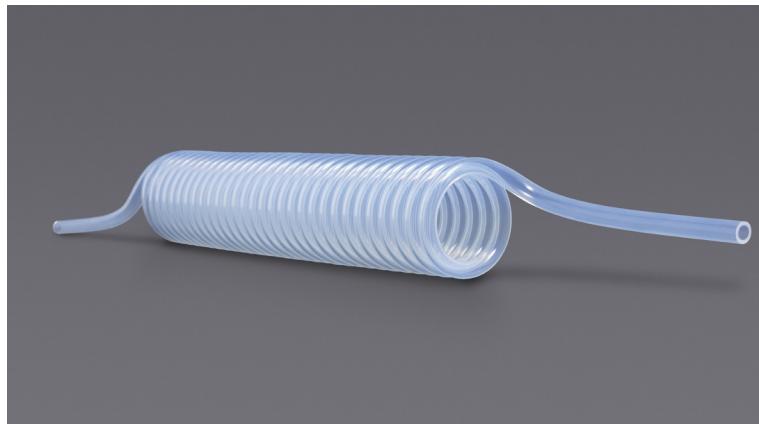
451 HP PFA

480 UHP PFA

480 Dual
Containment

500 PVDF

550 PVDF



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ALTAFLO 100 PTFE // **Tubing**

Part Number	ID	OD	+/-	Wall	+/-
Industrial Wall					
100-0062-015-XX	1/32	1/16	.003	0.015	.003
100-0094-030-XX	1/32	3/32	.005	0.030	.005
100-0125-030-XX	1/16	1/8	.005	0.030	.005
100-0188-030-XX	1/8	3/16	.005	0.030	.005
100-0250-030-XX	3/16	1/4	.005	0.030	.005
100-0313-030-XX	1/4	5/16	.005	0.030	.005
100-0375-030-XX	5/16	3/8	.005	0.030	.005
100-0500-030-XX	7/16	1/2	.005	0.030	.005
Custom Wall					
100-0250-040-XX	0.17	1/4	.005	0.040	.005
100-0375-040-XX	0.295	3/8	.005	0.040	.003
100-0250-047-XX	5/32	1/4	.005	0.047	.005
Heavy Wall					
100-0250-062-XX	1/8	1/4	.005	0.062	.005
100-0313-062-XX	3/16	5/16	.005	0.062	.005
100-0375-062-XX	1/4	3/8	.005	0.062	.005
100-0500-062-XX	3/8	1/2	.005	0.062	.005
Metric Sizes					
100-0157-040-XX	2mm	4 mm		1mm	
	0.079	0.157	.005	0.040	.005
100-0236-040-XX	4mm	6 mm		1mm	
	0.157	0.236	.005	0.040	.005
100-0315-040-XX	6mm	8 mm		1mm	
	0.236	0.315	.005	0.040	.005
100-0394-040-XX	8mm	10 mm		1mm	
	0.315	0.394	.005	0.040	.005
100-0472-040-XX	10mm	12 mm		1mm	
	0.394	0.472	.005	0.040	.005
100-0354-059-XX	6mm	9mm		1.5mm	
	0.236	0.354	.005	0.590	.005

Stocked in natural color — please consult factory for details on available colors.

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ALTAFLO 100 PTFE

PTFE (polytetrafluoroethylene) was first developed by the E.I. DuPont Co. PTFE is the most flexible of all fluoropolymers offered. Altaflo 100 PTFE has the broadest temperature range of any fluoropolymer and can resist highly corrosive liquids and gases even at elevated temperatures. The smooth surface finish, lowest coefficient of friction, and lubricity make it ideal for bushing or bearing applications. Lengths may be limited due to batch size — please call to confirm available lengths at time of order. Altaflo 100 is compatible with most standard fittings (not suitable for use with flare-type fittings).

Features

- 100% virgin grade PTFE resins
- Most flexible fluoropolymer
- Chemically inert and resistant to nearly all industrial chemicals and solvents
- Low permeability
- Smooth non-stick surface finish
- Lowest coefficient of friction
- Excellent electrical properties
- Non-Flammable
- Non-Toxic
- FDA Compliant
- Suitable for use with conventional fittings

Applications

- Laboratory
- Chemical Process
- Analytical and process equipment
- Cryogenic applications
- Electrical applications
- High Temperature applications
- Automotive

Specifications

- **General:** Meets or exceeds the requirements listed in ASTM D 3295 (except for dimensional on specific items)
- **Temperature:** -410° F to 500° F continuous / 550° F short-term
- **Flammability:** PTFE tubing resists combustion and does not promote flame spread. PTFE resin used for production of Altaflo® 100 series is UL 94 VO rated
- **FDA:** PTFE is approved for use in food contact applications in compliance with FDA regulation: 21 CFR 177.1550

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.

ALTAFLO 100 PTFE // Bend Radius and Working Pressure Chart

Part Number	OD	Wall	ID	Bend Radius	Working Pressure @ 73° F
Industrial Wall					
100-0062-015-XX	1/16	0.015	1/32	3/8"	270
100-0094-030-XX	3/32	0.030	1/32	1/2"	350
100-0125-030-XX	0.125	0.030	0.062	1/2"	443
100-0188-030-XX	0.188	0.030	0.125	3/4"	254
100-0250-030-XX	0.250	0.030	0.188	1"	172
100-0313-030-XX	0.313	0.030	0.250	1-3/4"	120
100-0375-030-XX	0.375	0.030	0.313	1-3/4"	100
100-0500-030-XX	0.500	0.030	0.438	6"	71
Custom Wall					
100-0250-040-XX	0.250	0.040	0.170	1"	310
100-0250-047-XX	0.250	0.047	0.156	3/4"	360
Heavy Wall					
100-0250-062-XX	0.250	0.062	0.125	1/2"	398
100-0313-062-XX	0.313	0.062	0.188	3/4"	356
100-0375-062-XX	0.375	0.062	0.250	1"	248
100-0500-062-XX	0.500	0.062	0.375	2-1/2"	150
Metric					
100-0157-040-XX	0.157	0.04	0.079	3/4"	455
	4mm	1mm	2mm		
100-0236-040-XX	0.236	0.040	0.157	1"	208
	6mm	1mm	4mm		
100-0315-040-XX	0.315	0.040	0.236	1-1/2"	156
	8mm	1mm	6mm		
100-0394-040-XX	0.394	0.040	0.315	2"	125
	10mm	1mm	8mm		
100-0472-040-XX	0.472	0.040	0.394	4"	104

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.

ALTAFLO 100 PTFE // Physical Properties

Physical Property	ASTM Test Method	Units	Values
Upper Service Temp. Long Term			500° F
Upper Service Temp. Short Term			500° F
Specific Gravity	D 792		2.15
Tensile Strength	D 1708	PSI	2500-3000
Elongation	D638	%	200-400
Flex Modulus	D 790	PSI	27,000
MIT Flex Life	D 2176		1,000,000+
Hardness	D 2240	Shore D	60

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ALTAFLO 200 FEP // **Tubing**

Part Number	ID	OD	+/-	Wall	+/-
Industrial Wall					
200-0062-015-XX	1/32	1/16	.003	.015	.003
200-0125-030-XX	1/16	1/8	.004	.030	.003
200-0156-030-XX	3/32	5/32	.004	.030	.003
200-0188-030-XX	1/8	3/16	.004	.030	.003
200-0250-030-XX	3/16	1/4	.004	.030	.003
200-0313-030-XX	1/4	5/16	.005	.030	.003
200-0375-030-XX	5/16	3/8	.005	.030	.003
200-0438-030-XX	3/8	7/16	.005	.030	.003
200-0500-030-XX	7/16	1/2	.005	.030	.003
200-0562-030-XX†	1/2	9/16	.005	.030	.003
200-0625-030-XX†	9/16	5/8	.005	.030	.003
200-0688-030-XX†	5/8	11/16	.005	.030	.003
200-0750-030-XX†	11/16	3/4	.005	.030	.003
Heavy Wall					
200-0188-062-XX	1/16	3/16	.005	.062	.003
200-0250-062-XX	1/8	1/4	.005	.062	.003
200-0313-062-XX	3/16	5/16	.005	.062	.003
200-0375-062-XX	1/4	3/8	.005	.062	.003
200-0438-062-XX	5/16	7/16	.005	.062	.003
200-0500-062-XX	3/8	1/2	.005	.062	.003
200-0625-062-XX	1/2	5/8	.005	.062	.003
200-0750-062-XX	5/8	3/4	.005	.062	.003
200-0875-062-XX†	3/4	7/8	.005	.062	.003
200-1000-062-XX*	7/8	1	.005	.062	.003
200-1125-062-XX*	1	1-1/8	.006	.062	.003
200-1250-062-XX**	1-1/8	1-1/4	.006	.062	.003
200-1375-062-XX**	1-1/4	1-3/8	.008	.062	.003
200-1500-062-XX**†	1-3/8	1-1/2	.010	.062	.003
200-1625-062-XX**†	1-1/2	1-5/8	.012	.062	.003
200-1750-062-XX†**	1-5/8	1-3/4	.015	.062	.003
200-2000-062-XX**†	1-7/8	2	.015	.062	.003
200-2125-062-XX**†	2	2-1/8	.015	.062	.003
Stock Custom Size					
200-0250-040-XX	.170	1/4	.004	.040	.003
200-0250-047-XX	.156	1/4	.004	.047	.003
200-0375-047-XX	.281	3/8	.005	.047	.003
200-1100-050-XX*	1	1.10	.010	.050	.003

*Straight length or reels

**Straight lengths only

† Custom item – please consult factory for lead time and minimum order requirements. Additional sizes up to 4" OD are available as custom extrusions – minimum order requirements may apply. Please contact Pexco for details.

ALTAFLO 200 FEP

FEP (fluorinated ethylene propylene) is an economical choice for applications requiring chemical resistance in combination with broad temperature exposure. ALTAFLO 200 FEP offers excellent clarity, which makes it ideal for sight glass/flow monitoring applications. Additionally, the outstanding UV transmission rate of FEP makes it a clear choice for UV water purification systems.

ALTAFLO 200 Series FEP will not impart taste or odor. ALTAFLO 200 tubing may be used with flare or conventional fittings.

Features

- 100% virgin grade high-performance resins used to resist stress cracking
- Chemically inert to most industrial chemicals and solvents
- High thermal stability
- Excellent UV transmission
- Low permeability
- Moisture absorption nearly zero
- FDA compliant for food contact
- Non-flammable
- Superior electrical insulation properties
- Available in smooth bore, convoluted and coiled hose constructions

Applications

- Chemical process
- Food processing
- Laboratory applications
- Electrical insulation
- UV water purification systems
- Automotive
- Groundwater monitoring
- Paint spray

Specifications

- **General:** Meets or exceeds the requirements listed in ASTM D 2116 Type IV
- **Temperature:** -100°F to 400°F
- **Flammability:** FEP resists combustion and does not promote flame spread
- **FDA:** ALTAFLO 200 FEP is approved for use in food contact applications in compliance with FDA regulation: 21 CFR 177.1550
- **USP Class VI:** ALTAFLO 200 FEP meets the requirements of USP Class VI
- **NSF:** ALTAFLO 200 FEP tubing is certified to NSF 61 and NSF 372

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.

ALTAFLO 200 // FEP Tubing

Part Number	ID	OD	+/-	Wall	+/-
Metric Sizes					
200-0157-040-XX	.079	.157	.005	0.040	.003
	2mm	4mm		1mm	
200-0197-040-XX†	.118	.197	.005	0.040	.003
	3mm	5mm		1mm	
200-0236-040-XX	.157	.236	.005	0.040	.003
	4mm	6mm		1mm	
200-0276-040-XX†	.197	.276	.005	0.040	.003
	5mm	7mm		1mm	
200-0315-040-XX	.236	.315	.005	0.040	.003
	6mm	8mm		1mm	
200-0354-040-XX†	.276	.354	.005	0.040	.003
	7mm	9mm		1mm	
200-0394-040-XX	.315	.394	.005	0.040	.003
	8mm	10mm		1mm	
200-0433-040-XX†	.354	.433	.005	0.040	.003
	9mm	11mm		1mm	
200-0472-040-XX	.394	.472	.005	0.040	.003
	10mm	12mm		1mm	
200-0512-040-XX†	.433	.512	.005	0.040	.003
	11mm	13mm		1mm	
200-0551-040-XX	.472	.551	.005	0.040	.003
	12mm	14mm		1mm	
200-0630-040-XX	.551	.630	.005	0.040	.003
	14mm	16mm		1mm	
200-0354-059-XX†	.236	.354	.005	0.059	.003
	6mm	9mm		1.5mm	
200-0472-059-XX†	.354	.472	.005	0.059	.003
	9mm	12mm		1.5mm	

*Straight length or reels

**Straight lengths only

† Custom item – please consult factory for lead time and minimum order requirements.

Additional sizes up to 4" OD are available as custom extrusions – minimum order requirements may apply. Please contact sales@pexco.com for details. Stocked in natural color – please consult factory for details on available colors.

ALTAFLO 200 FEP // Bend Radius and Working Pressure Chart

Part Number	OD	Wall	ID	Bend Radius	Working Pressure @ 73°F
200-0125-030-XX	0.125	0.030	0.062	1/2"	445
200-0156-030-XX	0.156	0.030	0.094	1/2"	357
200-0188-030-XX	0.188	0.030	0.125	3/4"	296
200-0188-062-XX	0.188	0.062	0.062	1/2"	612
200-0250-030-XX	0.250	0.030	0.188	1"	223
200-0250-040-XX	0.250	0.040	0.170	1"	297
200-0250-047-XX	0.250	0.047	0.156	3/4"	349
200-0250-062-XX	0.250	0.062	0.125	1/2"	460
200-0313-030-XX	0.313	0.030	0.250	1-3/4"	178
200-0313-062-XX	0.313	0.062	0.188	1"	368
200-0375-030-XX	0.375	0.030	0.313	2-1/2"	148
200-0375-062-XX	0.375	0.062	0.250	1"	307
200-0438-030-XX	0.438	0.030	0.375	3-1/2"	127
200-0438-062-XX	0.438	0.062	0.313	2"	263
200-0500-030-XX	0.500	0.030	0.438	6"	111
200-0500-062-XX	0.500	0.062	0.375	2"	230
200-0625-030-XX	0.625	0.030	0.562	6-1/2"	89
200-0625-062-XX	0.625	0.062	0.500	3"	184
200-0750-030-XX	0.750	0.030	0.688	8"	74
200-0750-062-XX	0.750	0.062	0.625	6"	153
200-0875-062-XX	0.875	0.062	0.750	12"	132
200-1000-062-XX	1.000	0.062	0.875	22"	115
200-1125-062-XX	1.125	0.062	1.000	30"	75
200-1250-062-XX	1.250	0.062	1.125	N/A	70
Metric Sizes					
200-0157-040-XX	.157	0.040	.079	1-1/2"	464
	4 mm	1mm	2mm		
200-0197-040-XX†	.197	0.040	.118	1-3/4"	380
	5mm	1mm	3mm		
200-0236-040-XX	.236	0.040	.157	2-1/2"	312
	6mm	1mm	4mm		
200-0276-040-XX†	.276	0.040	.197	2-1/2"	274
	7mm	1mm	5mm		
200-0315-040-XX	.315	0.040	.236	2-3/4"	234
	8mm	1mm	6mm		
200-0354-040-XX†	.354	0.040	.276	2-3/4"	210
	9mm	1mm	7mm		
200-0394-040-XX	.394	0.040	.315	2-3/4"	187
	10mm	1mm	8mm		
200-0433-040-XX†	.433	0.040	.354	4"	170
	11mm	1mm	9mm		
200-0472-040-XX	.472	0.040	.394	4"	156
	12mm	1mm	10mm		
200-0512-040-XX†	.512	0.040	.433		
	13mm	1mm	11mm		
200-0551-040-XX	.551	0.040	.472		
	14mm	1mm	12mm		
200-0630-040-XX	.630	0.040	.551		
	16mm	1mm	14mm		
200-0354-059-XX†	.354	0.059	.236	1"	290
	9mm	1.5mm	6mm		
200-0472-059-XX†	.472	0.059	.354	2"	220
	12mm	1.5mm	9mm		

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.

ALTAFLO 200 Series FEP // Physical Properties

Physical Property	ASTM Test Method	Units	Values
Upper Service Temp.			400° F
Specific Gravity	D 792		2.15
Tensile Strength	D 1708	PSI	4,000
Elongation	D 638	%	400
Flex Modulus	D 790	PSI	90,000
MIT Flex Life	D 2176		200,000
Hardness	D 2240	Shore D	57-60

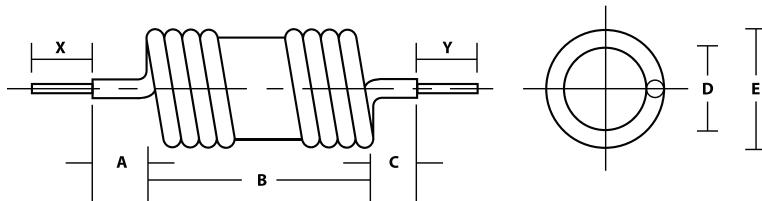
NOTE: The values represented are based on the use of 100% virgin grade high performance – low melt flow FEP resin as used in the production of ALTAFLO 200 Series Tubing. When comparing data it is critical that performance values are listed for the grade of resin used.

ALTAFLO 200 FEP // Schedule 40 Pipe

Part Number	Normal Size	Actual OD	Wall	Bend Radius
200-0540-088-0C	1/4"	.540" ± .010	.088" ± .020, -0	10 FT
200-0840-109-0C	1/2"	.840" ± .010	.109" ± .020, -0	10 FT
200-1050-113-0C	3/4"	1.050" ± .010	.113" ± .020, -0	10 FT
200-1315-133-0C	1"	1.315" ± .010	.133" ± .020, -0	10 FT
200-1660-140-0C*	1-1/4"	1.660" ± .015	.140" ± .020, -0	10 FT
200-1900-145-0C*	1-1/2"	1.900" ± .015	.145" ± .020, -0	10 FT
200-2375-154-0C*	2"	2.374" ± .015	.154" ± .020, -0	10 FT

*Custom item – please consult factory for lead time and minimum order requirements. Additional sizes and Schedule 80 Pipe available upon request.

ALTAFLO 200 FEP // Coiled Hose



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

ALTAFLO 200 FEP // Standard Convoluted Construction

Part Number	Nominal OD Size	ID Min	ID Max	OD Max	Nominal Wall	Convolutions Per Inch
200-0375-020-XX*	3/8"	0.251	0.275	0.375	0.020	6
200-0500-023-XX*	1/2"	0.364	0.375	0.500	0.023	6
200-0625-025-XX*	5/8"	0.485	0.500	0.625	0.025	5.5
200-0750-025-XX*	3/4"	0.608	0.625	0.750	0.025	5
200-0875-025-XX*	7/8"	0.730	0.750	0.875	0.025	4
200-1000-025-XX*	1"	0.860	0.875	1.000	0.025	3.5

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

ALTAFLO 200 FEP // Ultra Flex Convoluted Construction

Part Number	Nominal OD Size	ID Min	ID Max	OD Max	Nominal Wall	Convolutions Per Inch
20U-0375-020-XX	3/8"	0.251	0.275	0.375	0.020	9
20U-0500-023-XX	1/2"	0.364	0.375	0.500	0.023	9
20U-0625-025-XX	5/8"	0.485	0.500	0.625	0.025	9
20U-0750-025-XX	3/4"	0.608	0.625	0.750	0.025	8
20U-1000-025-XX	1"	0.860	0.875	1.000	0.025	8

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



This ALTAFLO 200 FEP has been tested and certified by WQA against NSF/ANSI 61 and NSF/ANSI 372 for lead free compliance.

Testing to NSF 51 is no longer being done by our NSF certifying agent. We have previously received this certification and have reason to believe if tested these products would meet the requirements. Each has currently achieved NSF 61 and NSF 372 certification. We are in the process of locating a new certifying agent for the NSF 51 certification.

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ALTAFLO 2EO FEP ENVIRO // Enviro Tubing

Part Number	ID	OD	+/-	Wall	+/-
2EO-0125-030-OC	.062	.125	.003	0.030	.003
2EO-0250-030-XX	.190	1/4	.004	0.030	.003
2EO-0313-030-XX	1/4	5/16	.005	0.030	.003
2EO-0375-030-XX	5/16	3/8	.005	0.030	.003
2EO-0500-030-XX	7/16	1/2	.005	0.030	.003
2EO-0250-040-XX	.170	1/4	.005	0.040	.003
2EO-0375-062-XX	1/4	3/8	.005	0.062	.003
2EO-0500-062-XX	3/8	1/2	.005	0.062	.003

Additional sizes up to 4" OD are available as custom extrusions – minimum order requirements may apply. Please contact Pexco's office for details. This tubing is not recommended for aggressive chemical applications – please refer to Altaflo 200 or Altaflo 400.

ALTAFLO 2EO FEP ENVIRO // Bend Radius and Working Pressure Chart

Part Number	OD	Wall	ID	Bend Radius	Working Pressure @ 73°
2EO-0125-030-OC	0.125	0.030	.062	1/2"	360
2EO-0250-030-XX	0.190	0.250	.030	1"	195
2EO-0313-030-XX	0.250	0.313	.030	1-3/4"	156
2EO-0375-030-XX	0.313	0.375	.030	2-1/2"	130
2EO-0500-030-XX	0.438	0.500	.030	6"	97
2EO-0250-040-XX	0.170	0.250	.040	1"	260
2EO-0375-062-XX	0.250	0.375	.062	1"	269
2EO-0500-062-XX	0.375	0.500	.062	2"	200

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 Pexco does not recommend exceeding the suggested Working Pressure listed.

ALTAFLO 2EO FEP ENVIRO // Physical Properties

Physical Property	ASTM Test Method	Units	Values
Upper Service Temp. Long Term			400° F
Specific Gravity	D 792		2.12-2.17
Tensile Strength	D 1708	PSI	3500
Elongation	D 638	%	300-400
Flex Modulus	D 790	PSI	90,000
MIT Flex Life	D 2176		5000
Hardness	D 2240	Shore D	57-60

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ALTAFLO 2EO FEP ENVIRO

Altaflo 2EO Enviro Series FEP (fluorinated ethylene

propylene) is designed specifically for use in environmental sampling applications. This cost-effective choice is the preferred product for applications requiring the purity of FEP without exposure to aggressive chemical or other harsh conditions. Altaflo 2EO Series FEP does not impart taste, odor, or other contaminants.

For more critical application requirements, we suggest the use of Altaflo 200 FEP or Altaflo 400 PFA Tubing.

Features

- Excellent UV transmission
- Low permeability
- High thermal stability
- Excellent clarity
- Moisture absorption nearly zero
- Does not impart taste, odor, or contaminants
- Non-flammable

Applications

- Groundwater monitoring
- Air sampling
- Laboratory applications
- Water process
- UV water purification systems

Specifications

- **General:** FEP meets the requirements listed in ASTM D2116
- **Temperature:** -100° F to 400°
- **Flammability:** FEP is non-combustible and does not promote flame spread

ALTAFLO 400 PFA // **Tubing**

Part Number	ID	OD	+/-	Wall	+/-
Industrial Wall					
400-0062-015-XX	1/32	1/16	.003	.015	.003
400-0125-030-XX	1/16	1/8	.004	.030	.003
400-0156-030-XX	3/32	5/32	.004	.030	.003
400-0188-030-XX	1/8	3/16	.004	.030	.003
400-0250-030-XX	3/16	1/4	.004	.030	.003
400-0313-030-XX	1/4	5/16	.005	.030	.003
400-0375-030-XX	5/16	3/8	.005	.030	.003
400-0438-030-XX	3/8	7/16	.005	.030	.003
400-0500-030-XX	7/16	1/2	.005	.030	.003
400-0562-030-XX†	1/2	9/16	.005	.030	.003
400-0625-030-XX†	9/16	5/8	.005	.030	.003
400-0688-030-XX†	5/8	11/16	.005	.030	.003
400-0750-030-XX†	11/16	3/4	.005	.030	.003
Heavy Wall					
400-0188-062-XX	1/16	3/16	.005	.062	.003
400-0250-062-XX	1/8	1/4	.005	.062	.003
400-0313-062-XX	3/16	5/16	.005	.062	.003
400-0375-062-XX	1/4	3/8	.005	.062	.003
400-0438-062-XX	5/16	7/16	.005	.062	.003
400-0500-062-XX	3/8	1/2	.005	.062	.003
400-0625-062-XX	1/2	5/8	.005	.062	.003
400-0750-062-XX	5/8	3/4	.005	.062	.003
400-0875-062-XX†	3/4	7/8	.005	.062	.003
400-1000-062-XX*	7/8	1	.005	.062	.003
400-1125-062-XX*	1	1-1/8	.006	.062	.003
400-1250-062-XX**	1-1/8	1-1/4	.006	.062	.003
400-1375-062-XX**	1-1/4	1-3/8	.008	.062	.003
400-1500-062-XX**†	1-3/8	1-1/2	.010	.062	.003
400-1625-062-XX**†	1-1/2	1-5/8	.012	.062	.003
400-1750-062-XX**†	1-5/8	1-3/4	.015	.062	.003
400-2000-062-XX**†	1-7/8	2	.015	.062	.003
200-2125-062-XX**†	2	2-1/8	.015	.062	.003
Stock Custom Size					
400-0250-040-XX	.170	1/4	.004	.040	.003
400-0257-047-XX	.156	1/4	.004	.047	.003
400-0375-047-XX	.281	3/8	.005	.047	.003
400-1100-050-XX*	1.10	1.10	.010	.050	.003

*Straight length or reels

**Straight lengths only

† Custom item – please consult factory for lead time and minimum order requirements. Additional sizes up to 4" OD are available as custom extrusions – minimum order requirements may apply. Please contact Pexco for details.

ALTAFLO 400 PFA Tubing

PFA (perfluoroalkoxy) is the product of choice for applications involving extreme chemical resistance combined with high-temperature exposure. Although PFA is available in a variety of resin grades, ALTAFLO 400 PFA tubing is made exclusively from the highest molecular weight resins available, giving it superior physical properties, making it suitable for even the most demanding applications. ALTAFLO 400 Series PFA does not impart taste or odor. ALTAFLO 400 is compatible with flare or conventional type fittings.

Features

- 100% virgin grade high-performance resins used to resist stress cracking
- Chemically inert to nearly all industrial chemicals and solvents
- Higher thermal stability than FEP
- Lower permeability than FEP
- Translucent
- 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
- Higher upper surface temperature vs. FEP

Applications

• Chemical process	• Flow monitoring
• Heat exchangers	• Food processing
• Laboratory applications	• Electrical insulation
• Semiconductor	• Automotive

Specifications

- **General:** Meets or exceeds the requirements listed in ASTM D 6867-03
- **Temperature:** -300°F to 500°F
- **Flammability:** UL 94 VO rated. PFA resists combustion and does not promote flame spread
- **FDA:** ALTAFLO 400 PFA is approved for use in food contact applications in compliance with FDA regulation: 21 CFR 177.1550
- **USP Class VI:** ALTAFLO 400 meets the requirements of USP Class VI
- **NSF:** ALTAFLO 400 PFA tubing is certified to NSF 61 and NSF 372

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.

ALTAFLO 400 // PFA Tubing

Part Number	ID	OD	+/-	Wall	+/-
Metric Sizes					
400-0157-040-XX	.079	.157	.005	0.040	.003
	2mm	4mm		1mm	
400-0197-040-XX†	.118	.197	.005	0.040	.003
	3mm	5mm		1mm	
400-0236-040-XX	.157	.236	.005	0.040	.003
	4mm	6mm		1mm	
400-0276-040-XX†	.197	.276	.005	0.040	.003
	5mm	7mm		1mm	
400-0315-040-XX	.236	.315	.005	0.040	.003
	6mm	8mm		1mm	
400-0354-040-XX†	.276	.354	.005	0.040	.003
	7mm	9mm		1mm	
400-0394-040-XX	.315	.394	.005	0.040	.003
	8mm	10mm		1mm	
400-0433-040-XX†	.354	.433	.005	0.040	.003
	9mm	11mm		1mm	
400-0472-040-XX	.394	.472	.005	0.040	.003
	10mm	12mm		1mm	
400-0512-040-XX†	.433	.512	.005	0.040	.003
	11mm	13mm		1mm	
400-0551-040-XX	.472	.551	.005	0.040	.003
	12mm	14mm		1mm	
400-0630-040-XX	.551	.630	.005	0.040	.003
	14mm	16mm		1mm	
400-0354-059-XX†	.236	.354	.005	0.059	.003
	16mm	9mm		1.5mm	
400-0472-059-XX†	.354	.472	.005	0.059	.003
	9mm	12mm		1.5mm	

ALTAFLO 400 PFA // Bend Radius and Working Pressure Chart

Part Number	OD	Wall ID	ID	Bend Radius	Working Pressure @ 73°F
400-0125-030-XX	0.125	0.030	0.062	1/2"	445
400-0156-030-XX	0.156	0.030	0.094	1/2"	357
400-0188-030-XX	0.188	0.030	0.125	3/4"	296
400-0188-062-XX	0.188	0.062	0.062	1/2"	612
400-0250-030-XX	0.250	0.030	0.188	1"	223
400-0250-040-XX	0.250	0.040	0.170	1"	297
400-0250-047-XX	0.250	0.047	0.156	3/4"	349
400-0250-062-XX	0.250	0.062	0.125	1/2"	460
400-0313-030-XX	0.313	0.030	0.250	1-3/4"	178
400-0313-062-XX	0.313	0.062	0.188	1"	368
400-0375-030-XX	0.375	0.030	0.313	2-1/2"	148
400-0375-062-XX	0.375	0.062	0.250	1"	307
400-0438-030-XX	0.438	0.030	0.375	3-1/2"	127
400-0438-062-XX	0.438	0.062	0.313	2"	263
400-0500-030-XX	0.500	0.030	0.438	6"	111
400-0500-062-XX	0.500	0.062	0.375	2"	230
400-0625-030-XX	0.625	0.030	0.562	6-1/2"	89
400-0625-062-XX	0.625	0.062	0.500	3"	184
400-0750-030-XX	0.750	0.030	0.688	8"	74
400-0750-062-XX	0.750	0.062	0.625	6"	153
400-0875-062-XX	0.875	0.062	0.750	12"	132
400-1000-062-XX	1.000	0.062	0.875	22"	115
400-1125-062-XX	1.125	0.062	1.000	30"	75
400-1250-062-XX	1.250	0.062	1.125	N/A	70
Metric Sizes					
400-0157-040-XX	.157	0.040	.079	1-1/2"	464
	4mm	1mm	2mm		
400-0197-040-XX†	.197	0.040	.118	1-3/4"	380
	5mm	1mm	3mm		
400-0236-040-XX	.236	0.040	.157	2-1/2"	312
	6mm	1mm	4mm		
400-0276-040-XX†	.276	0.040	.197	2-1/2"	274
	7mm	1mm	5mm		
400-0315-040-XX	.315	0.040	.236	2-3/4"	234
	8mm	1mm	6mm		
400-0354-040-XX†	.354	0.040	.276	2-3/4"	210
	9mm	1mm	7mm		
400-0394-040-XX	.394	0.040	.315	2-3/4"	187
	10mm	1mm	8mm		
400-0433-040-XX†	.433	0.040	.354	4"	170
	11mm	1mm	9mm		
400-0472-040-XX	.472	0.040	.394	4"	156
	12mm	1mm	10mm		
400-0512-040-XX†	.512	0.040	.433		
	13mm	1mm	11mm		
400-0551-040-XX	.551	0.040	.472		
	14mm	1mm	12mm		
400-0630-040-XX	.630	0.040	.551		
	16mm	1mm	14mm		
400-0354-059-XX†	.354	0.059	.236	1"	290
	9mm	1.5mm	6mm		
400-0472-059-XX†	.472	0.059	.354	2"	220
	12mm	1.5mm	9mm		

*Straight length or reels

**Straight lengths only

† Custom item – please consult factory for lead time and minimum order requirements.

Additional sizes up to 4" OD are available as custom extrusions - minimum order requirements may apply. Please contact Pexco for details. Stocked in natural color – please consult factory for details on available colors.

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.

ALTAFLO 400 Series PFA // Physical Properties

Physical Property	ASTM Test Method	Units	Values
Upper Service Temp.	D 792	°F	400° F
Specific Gravity	D 792		2.15
Tensile Strength	D 1708	PSI	4,000
Elongation	D 638	%	400
Flex Modulus	D 790	PSI	90,000
MIT Flex Life	D 2176		200,000
Hardness	D 2240	Shore D	57-60

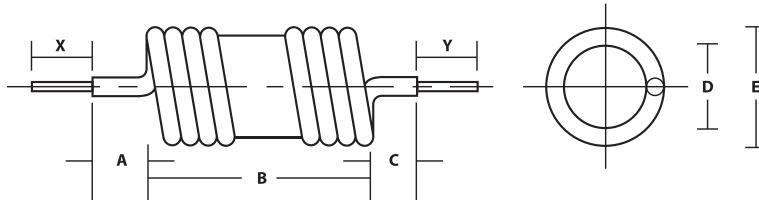
NOTE: The values represented are based on the use of 100% virgin-grade high-performance PFA resin used in the production of ALTAFLO 400 Series Tubing. When comparing data, it is critical that performance values are listed for the grade of resin used.

ALTAFLO 400 PFA // Schedule 40 Pipe

Part Number	Normal Size	Actual OD	Wall	Stock Length
400-0540-088-0C	1/4"	.540" ± .010	.088" ± .020,-0	10 FT
400-0840-109-0C	1/2"	.840" ± .010	.109" ± .020,-0	10 FT
400-1050-113-0C	3/4"	1.050" ± .010	.113" ± .020,-0	10 FT
400-1315-133-0C	1"	1.315" ± .010	.133" ± .020,-0	10 FT
400-1660-140-0C*	1-1/4"	1.660" ± .010	.140" ± .020,-0	10 FT
400-1900-145-0C*	1-1/2"	1.900" ± .015	.145" ± .020,-0	10 FT
400-2375-154-0C*	2"	2.374" ± .015	.154" ± .020,-0	10 FT

*Custom item — please consult factory for lead time and minimum order requirements.
Additional sizes and Schedule 80 Pipe available upon request.

ALTAFLO 400 PFA // Coiled Hose



* Custom item — see Coiled Hose Order Form for ordering information. Please consult the factory for additional details.)

ALTAFLO 400 PFA // Standard Convoluted Construction

Part Number	Nominal OD Size	ID Min	ID Max	OD Max	Nominal Wall	Convolutions Per Inch
40C-0375-020-XX*	3/8"	0.251	0.275	0.375	0.020	6
40C-0500-023-XX*	1/2"	0.364	0.375	0.500	0.023	6
40C-0625-025-XX*	5/8"	0.485	0.500	0.625	0.025	5.5
40C-0750-025-XX*	3/4"	0.608	0.625	0.750	0.025	5
40C-0875-025-XX*	7/8"	0.730	0.750	0.875	0.025	4
40C-1000-025-XX*	1"	0.860	0.875	1.000	0.025	3.5

*Custom item — please consult factory for lead time and minimum order requirements. Please see ALTAFLO 400 Ultra-Flex for stock items.

ALTAFLO 400 PFA // Ultra Flex Convoluted Construction

Part Number	Nominal Od Size	ID Min	ID Max	OD Max	Nominal Wall	Convolutions Per Inch
40U-0375-020-XX	3/8"	0.251	0.275	0.375	0.020	9
40U-0500-023-XX	1/2"	0.364	0.375	0.500	0.023	9
40U-0625-025-XX	5/8"	0.485	0.500	0.625	0.025	9
40U-0750-025-XX	3/4"	0.608	0.625	0.750	0.025	9
40U-1000-025-XX	1"	0.860	0.875	1.000	0.025	8

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



This ALTAFLO 400 PFA has been tested and certified by WQA against NSF/ANSI 61 to Commercial Ho

t(180° F/82° C), and NSF/ANSI 372 for lead free compliance.

Testing to NSF 51 is no longer being done by our NSF certifying agent. We have previously received this certification and have reason to believe if tested these products would meet the requirements. Each has currently achieved NSF 61 and NSF 372 certification. We are in the process of locating a new certifying agent for the NSF 51 certification.

Altaflo® is a registered trademark of Pexco LLC

Teflon™ is a brand of Chemours

Neoflon® is a registered trademark of Daikin

Kynar® and Kynar Flex® are registered trademarks of Arkema Inc.

ALTAFLO 451 HP PFA // **Tubing**

Part Number	ID	OD	+/-	Wall	+/-
451-0125-030-0C	1/16	1/8	.004	0.030	.003
451-0250-030-0C	3/16	1/4	.004	0.030	.003
451-0250-040-0C	.170	1/4	.004	0.040	.003
451-0250-047-0C	.156	1/4	.004	0.047	.003
451-0250-062-0C	1/8	1/4	.005	0.062	.003
451-0375-062-0C	1/4	3/8	.005	0.062	.003
451-0500-062-0C	3/8	1/2	.005	0.062	.003
451-0750-062-0C	5/8	3/4	.005	0.062	.003
451-1000-062-0C	7/8	1	.005	0.062	.003
451-1250-075-0C	1.100	1.250	.008	0.075	.005
451-1500-093-0C	1.314	1.500	.015	0.093	.008
METRIC SIZES					
451-0157-040-0C	.078	.157	.005	0.040	.003
	2mm	4mm	.005	1mm	.003
451-0236-040-0C	.157	.236	.005	0.040	.003
	4mm	6mm	.005	1mm	.003
451-0315-040-0C	.236	.315	.005	0.040	.003
	6mm	8mm	.005	1mm	.003
451-0394-040-0C	.315	.394	.005	0.040	.003
	8mm	10mm	.005	1mm	.003
451-0472-040-0C	.394	.472	.005	0.040	.003
	10mm	12mm	.005	1mm	.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 Altaflo 400 Series.

ALTAFLO 451 HP PFA // **Schedule 40 Pipe**

Part Number	NOMINAL SIZE	ACTUAL OD	WALL	STOCK LENGTH
451-0540-088-0C	1/4"	.540" ± .010	.088" +.020,-0	10ft
451-0840-109-0C	1/2"	.840" ± .010	.109" +.020,-0	10ft
451-1050-113-0C	3/4"	1.050" ± .015	.113" +.020,-0	10ft
451-1315-133-0C	1"	1.315" ± .015	.133" +.020,-0	10ft
451-1660-140-0C	1-1/4"	1.660" ± .015	.140" +.020,-0	10ft
451-1900-145-0C	1-1/2"	1.900" ± .015	.145" +.020,-0	10ft
451-2375-154-0C	2"	2.375" ± .020	.154" +.020,-0	10ft

Altaflo maintains inventory of Schedule 40 Pipe in our 451 HP PFA Series. Schedule 40 Pipe is also available as a Custom Order in Altafluor 200, 400 & 480 Series resins.

ALTAFLO 451 HP PFA (high purity perfluoroalkoxy)

is commonly chosen for applications involving extreme chemical resistance combined with high purity requirements. Although HP PFA is available in a variety of resin grades, Altaflo 451 HP PFA tubing is made from a high molecular weight, high purity resin that provides excellent chemical resistance, highest purity levels (extractable data available upon request) and smooth surface finish.

Altaflo 451 HP PFA does not impart taste or odor. Altaflo 451 HP PFA tubing is ideal for use with flare or conventional fittings.

Features

- Exclusive use of Chemours 451HP PFA resin
- 100% Virgin High Performance Grade resin used to resist stress cracking
- Chemically inert to nearly all industrial chemicals & solvents
- High thermal stability
- Low permeability
- Translucent
- Smooth 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
- Also available in pipe, coiled hose and convoluted constructions

Applications

- Semiconductor
- Chemical process
- Heat Exchangers
- Laboratory applications
- Flow Monitoring
- Pharmaceutical

Specifications

- **General:** Meets or exceeds the requirements listed in ASTM D 3307 Type II
- **Temperature:** -320°F to 500°F
- **Flammability:** Resin is UL 94 V0 rated. HP PFA resists combustion and does not promote flame spread
- **FDA:** 451 HP PFA resin is compliant with FDA regulation 21 CFR 177.1550, permitting its use in food contact applications
- **SEMI:** Meets or exceeds requirements of SEMI F57, F104, and C90

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.

ALTAFLO 451 HP PFA //
Bend Radius and Working Pressure Chart

Part Number	OD	Wall	ID	Bend Radius	Working Pressure @ 73°F
451-0125-030-0C	0.125	0.030	0.062	1/2"	451
451-0250-030-0C	0.250	0.030	0.188	1"	226
451-0250-040-0C	0.250	0.040	0.170	1"	301
451-0250-047-0C	0.250	0.047	0.157	3/4"	353
451-0250-062-0C	0.250	0.062	0.125	1/2"	466
451-0375-062-0C	0.375	0.062	0.250	1"	311
451-0500-062-0C	0.500	0.062	0.375	2"	233
451-0750-062-0C	0.750	0.062	0.625	6"	155
451-1000-062-0C	1.000	0.062	0.875	22"	117
451-1250-075-0C	1.250	0.075	1.100	25"	75
451-1500-093-0C	1.500	0.093	1.314	25"	105

Metric Sizes

451-0157-040-0C	0.157	0.040	0.079	1"	468
	4mm	1mm	2mm		
451-0236-040-0C	0.236	0.040	0.157	1-3/4"	313
	6mm	1mm	4mm		
451-0315-040-0C	0.315	0.040	0.236	2-1/2"	235
	8mm	1mm	6mm		
451-0394-040-0C	0.394	0.040	0.315	2-3/4"	188
	10mm	1mm	8mm		
451-0472-040-0C	0.472	0.040	0.394	4"	156
	12mm	1mm	10mm		

ALTAFLO 451 HP 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		500,000
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 Altaflo 451 Series Tubing. When comparing data it is critical that performance values are listed for the grade of resin used.

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.

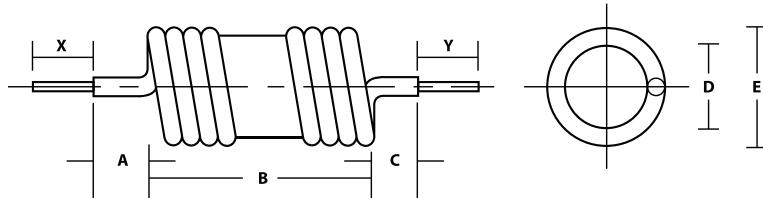
For an estimate on burst pressure at ambient temperature we consider a 3:1 ratio when exposure temperature is 73° F. However Altaflo does not recommend exceeding the suggested Working Pressure listed.

Additional sizes up to 2" are available.

Available in natural color only. For pigmented items, see Altaflo 400 Series.

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.

ALTAFLO 451 HP PFA // Coiled Hose



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

ALTAFLO 451 HP PFA // Standard Convoluted Construction

Part Number	Nominal OD Size	ID Min	ID Max	OD Max	Nominal Wall	Convolutions Per Inch
45C-0375-020-0C*	3/8	0.251	0.275	0.375	0.020	6
45C-0500-023-0C*	1/2	0.364	0.375	0.500	0.023	6
45C-0625-025-0C*	5/8	0.485	0.500	0.625	0.025	5.5
45C-0750-025-0C*	3/4	0.608	0.625	0.750	0.025	5
45C-0875-025-0C*	7/8	0.730	0.750	0.875	0.025	4
45C-1000-025-0C*	1	0.860	0.875	1.000	0.025	3.5

ALTAFLO 451 HP PFA // Ultra Flex Convoluted Construction

Part Number	Nominal OD Size	ID Min	ID Max	OD Max	Nominal Wall	Convolutions Per Inch
45U-0375-020-0C*	3/8	0.251	0.275	0.375	0.020	9
45U-0500-023-0C*	1/2	0.364	0.375	0.500	0.023	9
45U-0625-025-0C*	5/8	0.485	0.500	0.625	0.025	9
45U-0750-025-0C*	3/4	0.608	0.625	0.750	0.025	8
45U-0875-025-0C*	7/8	0.730	0.750	0.875	0.025	8
45U-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.

Available in natural color only. For pigmented items, see Altaflo 400 Series.

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ALTAFLO 480 UHP PFA // **Tubing**

Part Number	ID	OD	+/-	Wall	+/-
480-0125-030-OC	1/16	1/8	.004	.030	.003
480-0250-030-OC	3/16	1/4	.004	.030	.003
480-0250-040-OC	.170	1/4	.004	.040	.003
480-0250-047-OC	.156	1/4	.004	.047	.003
480-0250-062-OC	1/8	1/4	.005	.062	.003
480-0375-062-OC	1/4	3/8	.005	.062	.003
480-0500-062-OC	3/8	1/2	.005	.062	.003
480-0750-062-OC	5/8	3/4	.005	.062	.003
480-1000-062-OC	7/8	1	.005	.062	.003
480-1250-075-OC	1.100	1.250	.008	.075	.005
480-1500-093-OC	1.314	1.500	.015	.093	.008

Metric Sizes

480-0157-040-OC	2mm	4mm	.005	1mm	.003
	.078	.157	.005	.040	.003
480-0236-040-OC	4mm	6mm	.005	1mm	.003
	.157	.236	.005	.040	.003
480-0315-040-OC	6mm	8mm	.005	1mm	.003
	.236	.315	.005	.040	.003
480-0394-040-OC	8mm	10mm	.005	1mm	.003
	.315	.394	.005	.040	.003
480-0472-040-OC	10mm	12mm	.005	1mm	.003
	.394	.472	.005	.040	.003

*Straight length or reels

**Straight lengths only

† Custom item – please consult factory for lead time and minimum order requirements. Additional sizes up to 4" OD are available as custom extrusions – minimum order requirements may apply. Please contact Pexco for details.

ALTAFLO 480 UHP PFA Tubing**ALTAFLO 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, ALTAFLO 480 UHP PFA tubing is made exclusively from a high molecular weight, high purity resin that provides excellent chemical resistance, low permeation levels, high burst pressures, and the smoothest surface finish. Unlike standard HP PFA tubing products, ALTAFLO 480 Series UHP PFA has superior flex life values comparable to those of PTFE.

ALTAFLO 480 UHP PFA tubing is ideal for use with flare or conventional fittings.

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 V0 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:** ALTAFLO meets the requirements of USP Class VI
- **NSF:** ALTAFLO 480 UHP PFA tubing is certified to NSF 61 and NSF 372

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.

ALTAFLO 480 UHP PFA // Bend Radius and Working Pressure Chart

Part Number	OD	WALL	ID	Bend Radius	Working Pressure @ 73°F
480-0125-030-0C	0.125	0.030	0.062	1/2"	451
480-0250-030-0C	0.250	0.030	0.188	1"	226
480-0250-040-0C	0.250	0.040	0.170	1"	301
480-0250-047-0C	0.250	0.047	0.157	3/4"	353
480-0250-062-0C	0.250	0.062	0.125	1/2"	466
480-0375-062-0C	0.375	0.062	0.250	1"	311
480-0500-062-0C	0.500	0.062	0.375	2"	233
480-0750-062-0C	0.750	0.062	0.625	6"	155
480-1000-062-0C	1.000	0.062	0.875	22"	117
480-1250-075-0C	1.250	0.075	1.100	25"	75
480-1500-093-0C	1.500	0.093	1.314	25"	105
Metric Sizes					
480-0236-040-0C	0.236	0.040	0.157	1-3/4"	313
	6mm	1mm	4mm		
480-0315-040-0C	0.315	0.040	0.236	2-1/2"	235
	8mm	1mm	6mm		
480-0394-040-0C	0.394	0.040	0.315	2-3/4"	188
	10mm	1mm	8mm		

Notes: 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 the 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, Pexco does not recommend exceeding the suggested Working Pressure listed.

Additional sizes up to 2" are available.

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

ALTAFLO 480 UHP 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.

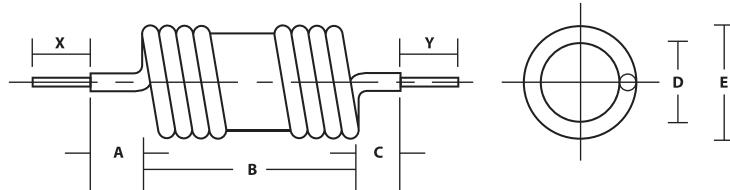
NOTE: The values represented above are based on the use of 100% virgin grade high performance – low melt flow PFA resin as used in the production of ALTAFLO 480 Series Tubing. When comparing data it is critical that performance values are listed for the grade of resin used.

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.

ALTAFLO 480 UHP PFA // Tubing Schedule 40 Pipe

Part Number	Normal Size	Actual Size	Wall	Stock Length
480-0540-088-0C	1/4"	.540" ± .010	.088" ± .020,-0	10 FT
480-0840-109-0C	1/2"	.840" ± .010	.109" ± .020,-0	10 FT
480-1050-113-0C	3/4"	1.050" ± .010	.113" ± .020,-0	10 FT
480-1315-133-0C	1"	1.315" ± .010	.133" ± .020,-0	10 FT
480-1660-140-0C	1-1/4"	1.660" ± .015	.140" ± .020,-0	10 FT
480-1900-145-0C	1-1/2"	1.900" ± .015	.145" ± .020,-0	10 FT
480-2375-154-0C	2"	2.374" ± .015	.154" ± .020,-0	10 FT

* Additional sizes and Schedule 80 Pipe available upon request. Minimum order requirements for non-catalog items will apply. 10 ft minimum order requirement – can be cut into shorter lengths for shipment. All 480 UHP PFA in stock. UHP PFA in stock

ALTAFLO 480 UHP PFA // Coiled Hose


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

ALTAFLO 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 ALTAFLO 400 series.

ALTAFLO 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	9
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 the factory for lead time and minimum order requirements.

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

Please contact Pexco for details.



This ALTAFLO 400 UHP PFA has been tested and certified by WQA against NSF/ANSI 61 to Commercial Hot (180° F/82° C), and NSF/ANSI 372 for lead free compliance.

Testing to NSF 51 is no longer being done by our NSF certifying agent. We have previously received this certification and have reason to believe if tested these products would meet the requirements. Each has currently achieved NSF 61 and NSF 372 certification. We are in the process of locating a new certifying agent for the NSF 51 certification.

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ALTAFLO 480 Series Dual Containment // **Tubing**

Part Number	Primary Tubing	Outer Tubing	PSI @ 72°F (PRIMARY)	WT/FT (LBS)
Industrial Wall				
DC-0250-0500-OC	5/32 ID x 1/4 OD x .047	3/8 ID x 1/2 OD x .062	355	.11
DC-0375-0750-OC	1/4 ID x 3/8 OD x .062	5/8 ID x 3/4 OD x .062	315	.18
DC-0500-0750-OC	3/8 ID x 1/2 OD x .062	5/8 ID x 3/4 OD x .062	235	.21
DC-0750-1000-OC	5/8 ID x 3/4 OD x .062	7/8 ID x 1 OD x .062	155	.30
DC-1000-1250-OC	7/8 ID x 1 OD x .062	1.10 ID x 1.250 OD x .075	120	.44

PACKAGING

Coils of 100 FT or less are packaged in heavy gauge heat-sealed double polybags. Longer lengths are supplied on plastic clean-room compatible reels. A partial reel charge may apply for reel lengths less than 500 FT.

Note: For Material Certifications, please see Altaflo 480 Series UHP PFA section. Please contact Pexco for details.

ALTAFLO 480 SERIES DUAL
CONTAINMENT TUBING

The CLEAR CHOICE for semiconductor, pharmaceutical, and other critical chemical systems

ALTAFLO DC SERIES DUAL CONTAINMENT TUBING

provides end users with an integrated fluid flow solution for critical processes where high purity and safety are primary concerns.

The inner tube, produced exclusively from 100% Virgin Daikin AP231SH UHP PFA resin, ensures the greatest overall performance in critical and aggressive applications. The outer tube, constructed of 100% Virgin grade FEP, not only provides excellent clarity for visual inspection but offers enhanced protection against product damage or personal injury from possible leaks that may occur during the chemical delivery process. The Tube-in-Tube design does not introduce contaminants during the installation process and the ability to provide Alfaflo Dual Containment Tubing in long continuous lengths reduces the need for excess connections thereby reducing the overall system cost.

Properties

- Exclusive use of Daikin AP-231SH UHP PFA SEMI F-57 and C-90 approved resin
- Produced and packaged in a clean room environment
- Ends capped — custom dual containment end caps
- Excellent chemical resistance (even with common Fluorosurfactants known to attack lower PFA grades)
- Low permeability
- Extremely low extractable levels: metallic and organic
- Extremely smooth surface finish
- Highest mechanical performance vs. other PFA and HP PFA tubing products
- Flex life comparable with PTFE
- Laser marked for complete traceability
- Flame resistant — fluoropolymers meet UL 94 V0

Applications

- Custom laser marking
- Custom packaging: straight lengths, short cut-to-length parts
- Private Labeling
- Additional sizes and material selections available upon request

Testing to NSF 51 is no longer being done by our NSF certifying agent. We have previously received this certification and have reason to believe if tested these products would meet the requirements. Each has currently achieved NSF 61 and NSF 372 certification. We are in the process of locating a new certifying agent for the NSF 51 certification.

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ALTAFLO 500 PVDF // Tubing

Altaflo 500 is produced from a Kynar® homopolymer PVDF resin and is available as a custom order. Minimum order requirements apply. Please consult factory for sizes and availability. For Flexible PVDF, please see Altaflo 550 series.

ALTAFLO 500 SERIES PVDF // Physical Properties

Physical Property	ASTM TEST METHOD	Units	Values
Upper Service Temp.			250°F
Specific Gravity	D 792		1.77-1.79
Tensile Strength	D 1708	PSI	5000-7000
Elongation	D 638	%	50-200
Flex Modulus	D 790	PSI	240,000-300,000
Hardness	D 2240	Shore D	76-80

Notes: 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 the 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, Pexco does not recommend exceeding the suggested Working Pressure listed.



This Altaflo 500 PVDF has been tested and certified by WQA against NSF/ANSI 61 to Commercial Hot (180° F/82° C), and NSF/ANSI 372 for lead free compliance.

C US

Testing to NSF 51 has been dropped by our certifying agent Water Quality Associates (WQA). We have previously received this certification and have reason to believe if tested these products would meet the requirements. Each has currently achieved NSF 61 and NSF 372 certification. We are in the process of locating a new certifying agent for the NSF 51 certification.

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ALTAFLO 500 PVDF Flex

PVDF (Polyvinylidene Fluoride) is an abrasion-resistant fluoropolymer suitable for use in applications requiring chemical resistance with low permeability. Altaflo 500 PVDF is the most abrasion and temperature-resistant of the PVDF products offered. Altaflo 500 provides excellent abrasion resistance and mechanical strength in use with many chemicals and solvents. With its extremely low extractable levels, Altaflo 500 is excellent for use in ultra-pure water systems. Altaflo 500 is suitable for use with conventional fittings but is not recommended for use with flare fittings.

Features

- 100% virgin grade Kynar® PVDF
- Good chemical resistance
- Excellent abrasion resistance
- UV resistant
- Low permeability
- FDA compliant

Applications

- Chemical process
- Water process systems
- Semiconductor
- Aquarium

Specifications

- **General:** Resins meet or exceed requirements listed in ASTM D 3222
- **Temperature:** -20°F to 250°F
- **Flammability:** UL 94-V0 rated Kynar® PVDF resists combustion and does not promote flame spread
- **FDA:** Kynar® PVDF is approved for use in food contact applications in compliance with FDA regulation 21 CFR 177.1500
- **NSF:** Resin used to produce Altaflo 500 Series PVDF Tubing is certified to NSF 61 and 372

ALTAFLO 550 PVDF Flex // **Tubing**

Part Number	ID	OD	+/-	Wall	+/-
550-0125-030-XX	1/16	1/8	.004	0.030	.003
550-0188-030-XX	1/8	3/16	.004	0.030	.003
550-0250-030-XX	3/16	1/4	.004	0.030	.003
550-0313-030-XX	1/4	5/16	.005	0.030	.003
550-0375-030-XX	5/16	3/8	.005	0.030	.003
550-0250-040-XX	.170	1/4	.005	0.040	.003
550-0250-047-XX	5/32	1/4	.005	0.047	.003
550-0250-062-XX	1/8	1/4	.005	0.062	.003
550-0375-062-XX	1/4	3/8	.005	0.062	.003
550-0500-062-XX	3/8	1/2	.005	0.062	.003
550-0625-062-XX	1/2	5/8	.006	0.062	.003
550-0750-062-XX	5/8	3/4	.006	0.062	.003
550-1000-062-XX	7/8	1	.006	0.062	.003

Metric Sizes

550-0157-040-XX	2mm	4 mm	.005	1mm	.003
	0.079	0.157	.005	0.040	.003
550-0236-040-XX	4mm	6 mm	.005	1mm	.003
	0.157	0.236	.005	0.040	.003
550-0315-040-XX	6mm	8 mm	.005	1mm	.003
	0.236	.315	.005	0.040	.003
550-0394-040-XX	8mm	10 mm	.005	1mm	.003
	.315	.394	.005	0.040	.003
550-0472-040-XX	10mm	12 mm	.005	1mm	.003
	.394	0.472	.005	0.040	.003

Additional sizes available — please consult factory for details.
Stocked in natural color — please consult factory for details on available colors.



C US

This ALTAFLO 550 PVDF Flex has been tested and certified by WQA against NSF/ANSI 61 to Commercial Hot (180° F/82° C), and NSF/ANSI 372 for lead free compliance.

Testing to NSF 51 has been dropped by our certifying agent Water Quality Associates (WQA). We have previously received this certification and have reason to believe if tested these products would meet the requirements. Each has currently achieved NSF 61 and NSF 372 certification. We are in the process of locating a new certifying agent for the NSF 51 certification.

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Kynar® and Kynar Flex® are registered trademarks of Arkema Inc.

ALTAFLO 550 PVDF Flex

PVDF FLEX (polyvinylidene fluoride — commonly known by the trade name KYNAR FLEX®) is a more flexible version of PVDF. ALTAFLO 550 Tubing is resistant to many commonly used industrial fluids and gases, including ozone, and does not support the growth of fungi. For this reason, ALTAFLO 550 tubing is preferred for water disinfecting processes involving ozone such as aquarium, spa, pool, and agriculture. Additionally, it is ideal for applications with exposure to less aggressive chemicals and lower temperature exposure (over FEP or PFA) or those requiring low extractable levels. ALTAFLO 550 is available in many standard sizes available to ship from stock. Custom sizes are available upon request.* ALTAFLO 550 tubing is compatible with most standard fittings (not suitable for use with flare fittings).

Features

- 100% virgin grade KYNAR FLEX® PVDF
- Chemically resistant to many industrial chemicals and solvents including acids, chlorinated chemicals, brominated chemicals, alcohols, and hydrocarbons.
- Low smoke and flame properties
- Resistant to bacteria and fungal growth
- Good abrasion resistance
- Low permeability
- Excellent creep resistance
- Excellent thermal stability
- Better flexibility (over ALTAFLO® 500)
- UV resistant
- Nuclear radiation resistant
- FDA compliant

Applications

- Metal preparation
- Food and beverage
- Petrochemical processing
- High purity semiconductor
- Water purification
- Chemical process
- Ultra-pure water process systems
- Pulp and paper
- Aquarium
- Pool and spa

Specifications

- **General:** Resin meets or exceeds requirements listed in ASTM D 3222
- **Temperature:** -20°F to 212°F
- **Flammability:** UL 94-V0 rated KYNAR FLEX® PVDF resists combustion and does not promote flame spread
- **FDA:** KYNAR FLEX® PVDF is approved for use in food contact applications in compliance with FDA regulation 21 CFR 177.2600
- **NSF:** Resin used to produce ALTAFLO 550 Series PVDF Tubing is certified to NSF 61 and 372

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

ALTAFLO 550 PVDF Flex // Bend Radius and Working Pressure Chart

Part Number	OD	Wall	ID	Bend Radius	Working Pressure @ 72°F
550-0125-030-OC	0.125	0.030	0.062	1/2"	416
550-0157-030-OC	0.156	0.030	0.094	3/4"	334
550-0188-030-OC	0.188	0.030	0.125	3/4"	277
550-0250-030-OC	0.250	0.030	0.188	1"	208
550-0313-030-OC	0.313	0.030	0.250	1-3/4"	166
550-0375-030-OC	0.375	0.030	0.312	2-1/2"	138
550-0438-030-OC	0.438	0.030	0.375	3-1/2"	118
550-0500-030-OC	0.500	0.030	0.437	6"	104
550-0562-030-OC	0.563	0.030	0.500	6-1/2"	93
550-0625-030-OC	0.625	0.030	0.562	6-1/2"	83
550-0688-030-OC	0.688	0.030	0.625	8"	75
550-0750-030-OC	0.750	0.030	0.687	8"	70
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550-0188-062-OC	0.188	0.062	0.062	1/2"	572
550-0250-062-OC	0.250	0.062	0.125	1/2"	430
550-0313-062-OC	0.313	0.062	0.188	1"	343
550-0375-062-OC	0.375	0.062	0.250	1"	286
550-0438-062-OC	0.438	0.062	0.313	2"	246
550-0500-062-OC	0.500	0.062	0.375	2"	215
550-0625-062-OC	0.625	0.062	0.500	3"	172
550-0750-062-OC	0.750	0.062	0.625	6"	143
550-0875-062-OC	0.875	0.062	0.750	12"	123
550-1000-062-OC	1.000	0.062	0.875	22"	107
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550-0250-040-OC	0.250	0.040	0.170	1"	278
550-0250-047-OC	0.250	0.047	0.156	3/4"	326
Metric Sizes	OD	Wall	ID	Bend Radius	Working Pressure @ 72°F
550-0157-040-OC	4mm	1mm	2mm	1-1/2"	434
550-0236-040-OC	6mm	1mm	4mm	2-1/2"	289
550-0315-040-OC	8mm	1mm	6mm	2-3/4"	217
550-0394-040-OC	10mm	1mm	8mm	2-3/4"	174
550-0472-040-OC	12mm	1mm	10mm	4"	145

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 available – please consult factory for details.

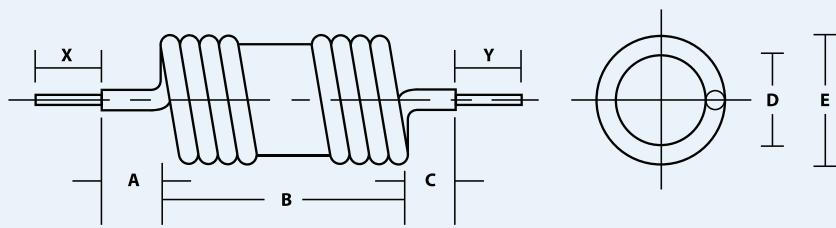
Stocked in natural color – please consult factory for details on available colors.

ALTAFLO 550 PVDF // Physical Properties

Physical Property	ASTM Test Method	Units	Values
Upper Service Temp			212° F
Specific Gravity	D 792		1.78
Tensile Strength	D 1708	PSI	3500
Elongation	D 638	%	200-500
Flex Modulus	D 790	PSI	40,000-60,000
Hardness	D 2240	Shore D	57-62

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.

All Altaflo products are available in coiled configurations. We will manufacture to your specifications. Please use this worksheet for ordering. You can also contact our sales department to discuss specific details of your application.



(Specify for each in the boxes below)

Coil TUBING

OD	Wall	Material	Color	Total Length
1/2" / 1/2" / 3/8" / 3/4"	.030" / .040" / .047" / .062"	<ul style="list-style-type: none"> • PTFE • UHP-PFA • HP-PFA • PFA • FEP • PVDF FLEX 	Natural	

Coil Dimensions

A Left Tail

B Retracted Length

C Right Tail

D Coil ID

E Coil OD

Inner Tubing (Complete this section only if the inner tube is required)

OD

Wall

Material - PTFE

Natural - Color

Total Length of Tube Used

(As required)

X Extension of Left Tail

(As required)

Y Extension of Right Tail

Coil Configuration

If the coil configuration shown above is not suitable for your purposes, please submit a custom design.

Drawing Number

USE SHOWN
CONFIGURATION
CUSTOM DESIGN
SUBMITTED

Revision

QUANTITY:

NOTES:

Company:

Name:

Email:

Phone:

Cell:

Fax:

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ALTAFLO MATERIAL SELECTION CHART

Physical Property	ASTM Test	100 (PTFE)	200 (FEP)	2E0 (FEP)	400 (PFA)	451 (HP PFA)	480 (UHP PFA)	500 (PVDF)	550 (PVDF FLEX)	700 (ETFE)
Upper Service Temp.		500° F*	400° F	400° F	500° F	500° F	500° F	250° F	212° F	300° F
Specific Gravity	D 792	2.15	2.15	2.12-2.17	2.15	2.15	2.15	1.77-1.79	1.78	1.74
Tensile Strength Psi	D 1708	2500-3000	4000	3500	4500	4500	4200	5000-7000	3500	3100-6800
Elongation %	D 638	200-400	400	300-400	400	400	400	50-200	200-500	420-450
Flex Modulus Psi	D 790	27,000	90,000	12,000	90,000	90,000	12,000	240,000-300,000	40,000-60,000	128,000-171,000
MIT Flex Life	D 2176	1,000,000+	200,000	5000	1,750,000	500,000	500,000+	N/A	N/A	N/A
Hardness – Shore D	D 2240	60	57-60	57-60	60	60	60	76-80	57-62	75

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 the factory for details.

*Altaflo 100 SERIES PTFE Short Term Upper Service Temp: 550° F.