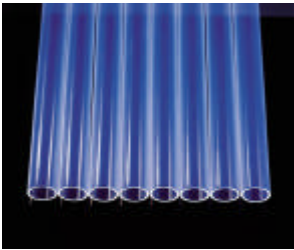


## Datasheet PFA Tubing

### 1. Material



#### Perfluoroalkoxy (PFA)

PFA is a melt processable fluoropolymer resin with a very high purity. Its properties are those of PTFE and include resistance to practically all chemicals, broad temperature range, resistance to weathering, low friction and excellent electrical insulation properties. More specifically, PFA is a fluorocarbon where the carbon atoms are fully bonded to fluorine atoms. The carbon-fluorine single bond is among the strongest known and results in PFA being virtually chemically inert and nonwetttable by fluids such as water. General plastics and elastomers, in contrast to metals, absorb varying quantities of materials they contact, especially organic liquids. Absorptives in PFA are unusually low and a chemical reaction between the resin and other substances is rare. Closely related to absorption is permeation. PFA displays the highest resistance to creep of all fluoropolymer resins except PTFE, which is important in the design of fluid handling systems.

### 2. Properties

<b>general</b>	Upper service temperature	260 °C
	Chemical resistance	excellent
	Specific gravity	2.15
	Melting point	305 °C
<b>electrical</b>	Dielectric constant	2.1
	Dielectric dissipation factor	0.0002
	Dielectric strength	> 2000 Volt / mil
<b>Mechanical</b>	Tensile strength	4000 psi
	Elongation	300 %
	Compressive strength	2200 psi
	Flexural Modulus	100 000 psi
	Hardness	D-60
<b>Enviromental</b>	Water absorption	< 0.03 %
	Water resistance	excellent
	Oxygen index	>95 %
	Flammability UL 94	V-0

### 3. Sizes

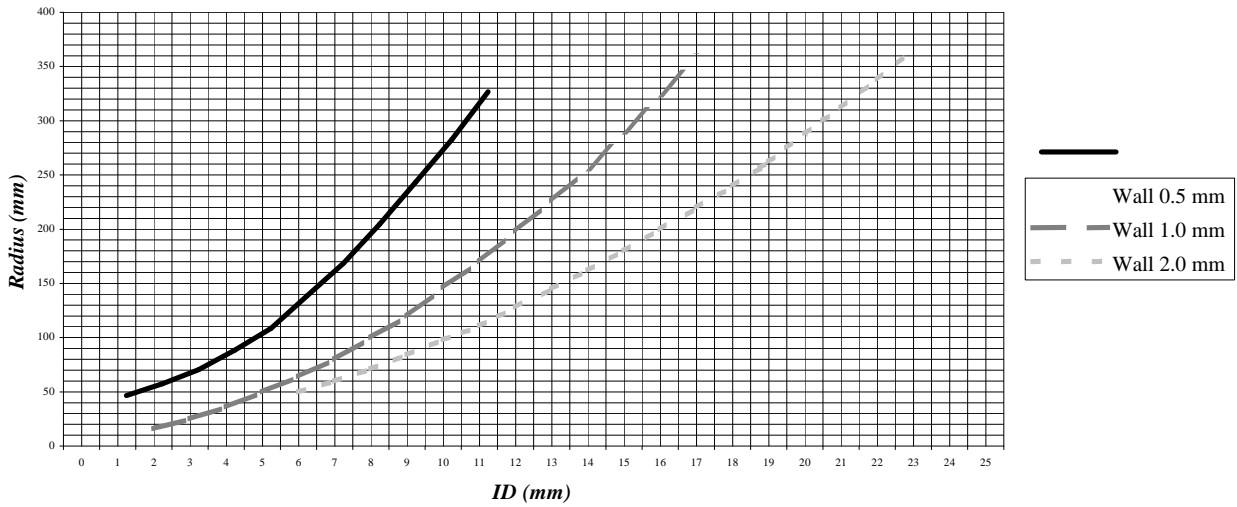
See our website at <http://www.scantube.com> or our catalog. Scantube produces metric and industrial sizes as well as AWG sizes. Special dimensions can be made upon request.

**4. Tolerances**

<u>OD mm</u>	<u>Tolerance</u>	<u>Wall mm</u>	<u>Tolerance</u>
2.00 - 3.99 mm	+/- 0.08 mm	- 0.30 mm	+/- 0.05 mm
4.00 - 7.99 mm	+/- 0.10 mm	0.31 - 0.70 mm	+/- 0.08 mm
8.00 - 9.99 mm	+/- 0.12 mm	0.71 - 1.00 mm	+/- 0.10 mm
10.00 - 11.99 mm	+/- 0.15 mm	1.01 - 1.30 mm	+/- 0.12 mm
12.00 - 15.99 mm	+/- 0.20 mm	1.31 - 1.60 mm	+/- 0.15 mm
for other dimensions please ask		1.60 - 2.00 mm	+/- 0.20 mm

**5. Bending radius**

Bending radius for PFA at 25° C



**6. Theoretical burstpressure values at room temperature**

These values are examples on theoretical basis. Scantube can, what so ever, not take any responsibility for the values shown. The Workingpressure depends on what safetyfactor you choose for your application.

<u>ID</u>	<u>OD</u>	<u>Wall</u>	<u>BAR=KG/cm2</u>
1.00	3.00	1.00	280.00
2.00	4.00	1.00	140.00
3.00	5.00	1.00	93.33
4.00	6.00	1.00	70.00
5.00	7.00	1.00	56.00
6.00	8.00	1.00	46.67
7.00	9.00	1.00	40.00
8.00	10.00	1.00	35.00
9.00	11.00	1.00	31.11
10.00	12.00	1.00	28.00
11.00	13.00	1.00	25.45
12.00	14.00	1.00	23.33
13.00	15.00	1.00	21.54
14.00	16.00	1.00	20.00
15.00	17.00	1.00	18.67
16.00	18.00	1.00	17.50
17.00	19.00	1.00	16.47
18.00	20.00	1.00	15.56
19.00	21.00	1.00	14.74
20.00	22.00	1.00	14.00

More information can be found at <http://www.scantube.com>