

PTFE Tubing Stability - Tech Information

Date: 16-JUNE-2023 Last Updated: 8-NOVEMBER-2025

Some important facts about PTFE tubing

PTFE tubing is commonly used in chromatography and many other laboratory applications due to its range of chemical resistance and other important properties, in relatively low pressures zones. Some of these properties include low coefficient of friction, and broad temperature use range which is up to 500°F (260°C), all while possessing still a certain compressive plasticity at temperatures near to the absolute Zero.

Although PTFE is "stable" at high temperatures, it should be taken into consideration that both the pressure and temperature can and most likely will decrease the PTFE stability. Stability is also dependent and will change with different wall thicknesses of the PTFE tubing.

Below are approximate "upper pressure limit use" of PTFE tubing with respect to wall thicknesses & inner diameter at 20°C (to be used only as a guide.)

| Wall Thickness (mm) / Inner Diameter (mm) | Pressure Limit: bar / psi |
|---|---------------------------|
| 2.0 / 20 | 5.8 / 84.1 |
| 1.5 / 20 | 4.1 / 59.5 |
| 1.0 / 20 | 2.9 / 42.1 |
| 0.75 / 20 | 2.1 / 30.5 |
| 0.50 / 20 | 1.9 / 27.6 |
| 0.20 / 9.7 | 1.65 / 23.9 |

ARE-APPLIED RESEARCH™