

### General description

Polytetrafluoroethylene (PTFE), is an engineering plastic known for its low coefficient of friction, inertness to chemicals, and resistance to heat. With a low friction surface, second only to ice, PTFE also boasts outstanding electrical, insulative and dielectric properties. When coated onto a fiber-glass fabric, it becomes dimensionally stable and durable. The addition of silicone or acrylic adhesive eliminates the need for mechanical fastening. This unique combination of materials, commonly referred to as "PTFE tape", is also resistant to tears, punctures, and abrasions. For these reasons, they are widely used in packaging, chemical processing, thread sealing and aerospace industries.



One of the defining characteristics of PTFE is how good it is at defeating friction. The use of PTFE tape in tapered tube threads performs a lubricating function, which more easily allows the threads to be screwed together, to the point of deformation, which is what creates the majority, if not all, of the seal.

PTFE tape is appropriate for use on tapered threads, where the thread itself provides the surface seal. It is not required on parallel threads - parallel threads will not effectively seal themselves, even with tape. The sealing force on a tapered thread comes from the wedge action, that of a parallel thread is merely the axial force from the nut and is inadequate for a good seal. For this reason parallel threads are only to be used to mechanically clamp some other form of seal. Such seals do not require additional tape, and applying tape to their threads has no purpose.

### Standards

There are two US standards for determining the quality of any PTFE tape. MIL-T-27730A (an obsolete military specification still commonly used in industry in the US) requires a minimum thickness of 3.5 mils and a minimum PTFE purity of 99%. The second standard, A-A-58092, is a commercial grade which maintains the thickness requirement of MIL-T-27730A and adds a minimum density of 1.2 g/cc. Relevant standards may vary between industries; tape for gas fittings (to UK gas regulations) is required to be thicker than that for water. Although PTFE itself is suitable for use with high-pressure oxygen, the grade of tape must also be known to be free from grease.

### Availability

PART	SIZE	PTFE DESCRIPTION	22 CALLIBRE		
			DENSITY	LENGTH	CARTON
0602.622A.0050	1/2"	22 CALLIBRE	0.35	15 mt.	500
0602.622B.0050			0.35	12 mt.	500
0602.622C.0050			0.35	10 mt.	500
0602.622D.0050			0.35	08 mt.	500
0602.622A.0075	3/4"		0.40	15 mt.	500
0602.622B.0075			0.40	12 mt.	500
0602.622C.0075			0.40	10 mt.	500
0602.622A.0100	1"		0.40	15 mt.	500
0602.622B.0100			0.40	12 mt.	500
0602.622C.0100			0.40	10 mt.	500

### WTF™ Series

PART	SIZE	PTFE DESCRIPTION	40 CALLIBRE		
			DENSITY	LENGTH	CARTON
0602.640A.0050	1/2"	40 CALLIBRE	1.00	15 mt.	500
0602.640A.0075	3/4"				
0602.640A.0100	1"				