

PTFE STW

PTFE TW (Polytetrafluoroethylene) is a non-flammable, super thin-wall sleeving with an exceptionally high operating temperature of -70°C to $+260^{\circ}\text{C}$. It has a very low coefficient of friction, high dielectric strength and is virtually inert to all chemicals. It is available in many colours and AWG, metric and imperial sizes as standard. Bespoke sizes, wall thicknesses and colours are also available.

PTFE hose and convoluted tubing is ideal for enhanced protection of wire, cable, electrical and electronic components for commercial and high performance military and aerospace systems. It is extremely stable at very high temperatures and retains a measure of toughness and strength even at cryogenic temperatures. It is virtually inert to all chemicals resisting most acids. Alkalis and petroleum products. It is virtually unaffected by oxygen, ozone and UV light. It is extremely hydrophobic and has a UL 94 rating of V-O. It also has a very low coefficient of friction and high dielectric strength and excellent mechanical properties.

Technical Data

- **Operating Temperature** -70°C to $+260^{\circ}\text{C}$
- **Flame Retardant:** Non-flammable
- **Colours:** Natural, Brown, Pink, Black, Yellow, Blue, Grey, Orange, Violet, Red, Green, White
- **Sizes:** STW26mm ? STW0mm
- **Packing:** Coils, reels, cut to length, cut sleeves
- **Approvals:** RoHS compliant
- **Applications / Industries:** General, Commercial, Electrical, Electronics, Industrial, Mechanical, Automotive, Military-defence, Aerospace



Properties	Typical Values	Test Methods
General		
Operating Temperature	-70°C – $+260^{\circ}\text{C}$	
Shelf Life	No special requirements	
Physical		
Tensile Strength	Longitudinal -33N/mm ² , transverse 31N/mm ²	DIN 53455, ASTM D1457-81
Ultimate elongation	Longitudinal -350%, transverse 610%	DIN 53455, ASTM D1457-81
Water absorption	0.01% max.	
Density	2.15g/cm ³	ASTM D1457-81
Hardness	D 55	ASTM D2240
Co-efficient of friction	Extremely low	
UV Resistance	Virtually unaffected by oxygen, ozone, visible or UV light	
Thermal		
Flammability	Non-flammable	UL 94 VO
Gel Transition Range	320°C – 340°C	DTA
Thermal Conductivity	0.25-0.50W/m.K	DIN 52612
Electrical		
Dielectric strength	40-80kV/mm (safe figure 40kV/mm)	ASTM D149
Volume resistivity	10^{12} ??cm	ASTM D257
Surface Resistance	10^{12} ??	ASTM D257
Chemical		
Chemical resistance	Virtually inert to all chemicals, organic solvents do not attack/dissolve	

Size (mm)	Supplied diameter (mm)	Nominal wall thickness (mm)
STW26	0.51	0.15
STW24	0.58	0.15
STW22	0.71	0.15
STW20	0.91	0.18
STW19	1.02	0.18
STW18	1.14	0.2
STW17	1.27	0.2
STW16	1.42	0.2
TW15	1.57	0.2
STW14	1.73	0.2
STW13	1.93	0.2
STW12	2.16	0.2
STW11	2.44	0.2
STW10	2.72	0.2
STW9	3.02	0.2
STW8	3.43	0.2
STW7	3.84	0.2
STW6	4.29	0.2
STW5	4.83	0.25
STW4	5.44	0.25
STW3	6.07	0.25
STW2	6.81	0.25
STW1	7.62	0.25
STW0	8.53	0.25

Printasleeve Ltd is as diligent as possible in compiling and updating the above information. It reflects averages derived from product sample testing, is subject to normal manufacturing and testing tolerances and may be changed without notice. Furthermore aesthetic and textural style differences can result in local variation. For specific or further information concerning our products, their specifications and their utilisation please contact us. E & OE

