



TECHNICAL DATA SHEET

A NEW FORCE IN CHEMICAL MANUFACTURING

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Issued: October 2019

PTFE Thread Seal Tape (Yellow)

PART NUMBER	DIMENSIONS
CT-TP12-10Y	Width: 12mm Thickness: 0.1mm Length: 10 Meters

PRODUCT DESCRIPTION

Chemtools® PTFE Thread Seal Tape (Yellow) is a premium, high-density tape of approximately 0.5g/cm³, which is generally used for critical applications such as natural gas, oxygen, or large, coarse threads. Made of 100% PTFE, it is resistant to most common chemicals, and ideal for sealing threaded pipe connections between 12.7mm (1/2 inch) and 50.8mm (2 inches) in diameter, at temperatures between -268°C and +260°C.

PTFE Thread Seal Tape (also known as 'PTFE Tape', 'Teflon Tape', or 'Plumber's Tape') is a polytetrafluoroethylene (PTFE) film tape commonly used in plumbing for sealing pipe threads. It lubricates, allowing for a deeper seating of the threads, thereby helping to prevent the threads from seizing when being unscrewed. The tape also works as a deformable filler and thread lubricant, helping to seal the joint without hardening or making it more difficult to tighten - instead, making it easier to tighten.

PTFE Thread Seal Tape is commonly used commercially in applications including pressurised water systems, central heating systems, and air compression equipment. It is designed for use on tapered/pipe threads where the sealing force is a wedge action, to ensure the most effective seal for the transport of liquids, gases, steam, and hydraulic fluid through pipes made from materials such as steel, brass, PTFE, nylon, bronze, and cast iron. Tapered threads form a seal when torqued as the flanks of the threads compress against each other, as opposed to parallel/straight thread fittings or compression fittings in which the threads merely hold the pieces together and do not provide the seal.

Tapered threads provide the mechanical strength, however, the main disadvantage is that voids in the connection can still remain once the mating threads are drawn together, resulting in the potential for leakage and galling, especially since there is no other sealing mechanism besides the thread themselves. Thread seal tape is thus required to seal any spiral leak paths or voids that may exist between threads on the fitting and the port, while also limiting corrosion on the threads, which otherwise can make future disassembly nearly impossible.



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DIRECTIONS

Before application, ensure all surfaces are clean, dry, and free of dust and grease.

Begin wrapping the tape approximately 4mm from the end of the joint, winding 3 to 4 layers around the male thread in a clockwise direction, in order to prevent the female thread from pushing the tape out of the joint during assembly.

If installing a heating component (such as a radiator valve) it is advisable to also apply some silicone-based jointing compound, to ensure the joint is completely water-tight at higher temperatures.

To complete the seal, simply assemble the joints and check for leaks.

TECHNICAL DATA

Tape Type	Standard density, economical choice
Packaging Appearance	White spool with yellow outer ring
Colour	Yellow
Thickness	0.1mm
Width	12mm
Length	10 Meters
Recommended Thread Diameter	12.7mm to 50.8mm (1/2 to 2 inches)
Temperature Range	-268°C to +260°C. <i>Note: PTFE is completely stable up to +260°C. Decomposition is slow up to 400°C but will occur on contact with open flames.</i>
Density	0.5g/cm ³
High Pressure Resistance	150 – 200 kg/cm ²
Tensile Strength	> 8 MPA
Percentage Elongation	> 25%
Residual Lubricant	< 0.5%

STORAGE

Store in a sealed container, in a cool, dry place, between 8°C to 27°C. Do not return any used material to its original container. Do not expose to temperatures above +260°C, or to open flames, to avoid decomposition.

FIRST AID & SAFETY PRECAUTIONS

Please refer to Safety Data Sheet (SDS) before use. This product should not be used, stored, or transported until the handling precautions and recommendations as stated in the Safety Data Sheet (SDS) for this product have been fully understood by all persons who will work with the material.



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FURTHER INFORMATION

Please visit Chemtools® online at www.chemtools.com.au for product photos, marketing materials, Technical Data Sheets, Safety Data Sheets, contact details, and other company/business related information.