

# PTFE Filter Tape

*Effectively captures metallic and organic contaminants for environmental monitoring XRF analysis*

In response to the worldwide concern over toxic air pollutants and R&D efforts to study emissions and pollution sources, we have developed PTFE filter tape specially designed for use in X-ray fluorescence (XRF) spectrometry to monitor metallic contaminants in an air stream. Contaminants are captured in the tape's porous membrane structure in preparation for element analysis.

Our filter tape has extremely low metal content with efficient air flow capability and a retention rating of 99.7% with 0.3  $\mu\text{m}$  particles. We offer Type I and Type II tape to meet your specific needs for use in air monitoring stations and in monitoring equipment, respectively. Both types come in standard widths and lengths, with custom sizes available upon request.

## APPLICATIONS

- Metallic monitoring with XRF spectroscopy
- Air quality monitoring stations
- XRF monitoring equipment

## FEATURES & BENEFITS

<b>Thin, PTFE membrane with no depth filter membrane support</b>	Has low metal content, producing a low noise-to-monitoring ratio
<b>Unique stretching technology</b>	Is highly pliable and easy to use
<b>Uniform porous membrane structure</b>	Enables reliable analysis results
<b>Optimal pore size</b>	Provides efficient particle retention for total suspended particulate (TSP), inhalable particulate material $\leq 10 \mu\text{m}$ (PM10) and $\leq 2.5 \mu\text{m}$ (PM2.5)



*Custom rolls are available to meet your unique requirements.*

## SPECIFICATIONS

<b>Materials of construction</b>	Membrane	PTFE
	Core	HDPE
<b>Retention rating</b>	2 µm	
<b>Dimensions*</b>	Width	19 mm (0.75"), 20 mm (0.79"), 30 mm (1.18")
	Length	30 m (98.4'), 33 m (108.3'), (40 m (131.2'), 100 m (328.0')
	Core inner diameter	41.2 mm (1.62"), 52.8 mm (2.08")

\*Width, length, and diameter may be customized. [Contact Entegris](#) with your requirements.

### Typical Membrane Characteristics and Performance

	Type I (T1)	Type II (T2)
<b>Retention rating</b>	2 µm	
<b>Thickness</b>	50 µm	70 µm
<b>Gurley (s, 300 cc/1 in<sup>2</sup> @ 4.88 inches H<sub>2</sub>O)</b>	2.4	2.6
<b>Particle retention (0.3 µm)</b>	≥99.7%	

### Typical Trace Element Concentration by XRF

Ion	Ion	Ion	Ion
Al	1.3 ng/cm <sup>2</sup>	Sr	0.3 ng/cm <sup>2</sup>
Si	1.2 ng/cm <sup>2</sup>	Y	0.2 ng/cm <sup>2</sup>
P	1.0 ng/cm <sup>2</sup>	Zr	0.3 ng/cm <sup>2</sup>
S	1.8 ng/cm <sup>2</sup>	Mo	ND
Cl	1.9 ng/cm <sup>2</sup>	Pd	1.6 ng/cm <sup>2</sup>
K	1.1 ng/cm <sup>2</sup>	Ag	1.6 ng/cm <sup>2</sup>
Ca	0.5 ng/cm <sup>2</sup>	Cd	1.5 ng/cm <sup>2</sup>
Ti	0.6 ng/cm <sup>2</sup>	In	1.3 ng/cm <sup>2</sup>
V	0.1 ng/cm <sup>2</sup>	Sn	1.9 ng/cm <sup>2</sup>
Cr	0.4 ng/cm <sup>2</sup>	Sb	1.7 ng/cm <sup>2</sup>
Mn	ND	Te	ND
Fe	0.5 ng/cm <sup>2</sup>	Cs	ND
Co	0.4 ng/cm <sup>2</sup>	Ba	2.1 ng/cm <sup>2</sup>
Ni	1.0 ng/cm <sup>2</sup>	La	2.4 ng/cm <sup>2</sup>
Cu	0.9 ng/cm <sup>2</sup>	Ce	ND
Zn	1.5 ng/cm <sup>2</sup>	W	ND
Ga	1.2 ng/cm <sup>2</sup>	Pt	ND
G3	0.3 ng/cm <sup>2</sup>	Au	0.1 ng/cm <sup>2</sup>
As	0.6 ng/cm <sup>2</sup>	Hg	0.3 ng/cm <sup>2</sup>

## SPECIFICATIONS

Se	0.3 ng/cm <sup>2</sup>	Tl	0.1 ng/cm <sup>2</sup>
Br	0.1 ng/cm <sup>2</sup>	Pb	1.2 ng/cm <sup>2</sup>
Rb	0.3 ng/cm <sup>2</sup>	Bi	ND

ND = Not detectable

## ORDERING INFORMATION

PART NUMBER	WIDTH	LENGTH	CORE INNER DIAMETER
EMRT2001930T4-AT2	19 mm (0.75")	30 m (98.4")	52.8 mm (2.08")
EMRT2001940T4-AT2	19 mm (0.75")	40 m (131.2')	52.8 mm (2.08")
EMRT2002030T4-AT2	20 mm (0.79")	30 m (98.4")	52.8 mm (2.08")
EMRT200301HT3-AT1	30 mm (1.18")	100 m (328.0')	41.2 mm (1.62")
EMRT2003033T3-AT1	30 mm (1.18")	33 m (108.3')	41.2 mm (1.62")

## FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](http://entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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