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 µm 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.

Custom rolls are available to meet your unique requirements.

APPLICATIONS

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

FEATURES & BENEFITS

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

SPECIFICATIONS

Materials of construction	Membrane	PTFE
	Core	HDPE
Retention rating	2 µm	
Dimensions*	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)
Retention rating	2 µm	
Thickness	50 µm	70 µm
Gurley (s, 300 cc/1 in^2 @ 4.88 inches H_2O)	2.4	2.6
Particle retention (0.3 µm)	≥99.7%	

Typical Trace Element Concentration by XRF

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

SPECIFICATIONS

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 and select the Contact Us link to find the customer service center nearest you.

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