

Filtration for Metal and Mining Testing

Cytiva Whatman laboratory filtration products for metal and mining testing

Cellulose filter paper

Metal content, wet chemistry



Cellulose filter papers for use in metal content tests and all other wet chemistry methods.

Syringe/syringeless filter

UHPLC/HPLC/ICP-MS/IC
sample prep: heavy
metal/trace element analysis



For sample preparation before HPLC/UHPLC/ICP-MS/IC instrumental analysis, syringe filters and syringeless filters are recommended.

Extraction thimbles

Stack gas analysis



For stack gas analysis, Whatman™ thimbles can withstand the high temperatures used in gas sample collection.

Glass fiber filter

Air monitoring: PM10
Water monitoring: SST



Our range of glass fiber filters and membranes are suitable for air and water monitoring applications.

Membrane filter

Air monitoring: PM2.5



In-line filter

Ground water analysis



In-line filters can be used to collect ground water for further analysis.

Whatman filtration products across the mining industries

Quality control labs:

Quality control labs routinely check the quality of incoming materials, such as metal ores, and final products. Sample preparation is a key step to ensuring accurate and stable results.

Environmental testing labs:

Filters are used to collect particles from water and air, and then tested in an environmental lab for further analysis to ensure safety and compliance.

Research labs:

Research labs use filters in a range of tests to monitor and improve refinery processes and evaluate minerals and mineral derivatives.

Whatman filter papers for metal content testing

Whatman Grade 40 and Grade 41 quantitative ashless filter papers are manufactured to strict specifications to meet mining industry requirements for filtration speed, clarity and metal content for mining metal tests.

Select the right Whatman paper grade for your metal tests:

What are you testing for?	Products	Characteristics and benefits
High Molybdenum, Pb Lead	Grade 40 	<ul style="list-style-type: none">• Good separation performance with particle retention 8 µm• Low ash content < 0.007%, background interferences
Zinc	Grade 41 	<ul style="list-style-type: none">• Good separation performance with particle retention 20 µm• Low ash content < 0.007% background interferences

Ordering information

Product name	Dimensions	Quantity	Product code
Grade 40	12.7 mm (variety of dimensions available)	400 pcs	1448-012
Grade 41	42.5 mm (variety of dimensions available)	100 pcs	1441-042

Whatman quantitative filter papers are designed to withstand the harsh chemicals and heat used in metal content testing

Sample preparation:

The sample is dissolved in a strong acid and heat, followed by chemicals being added to remove interferences when necessary and separate the target element.

Using filter paper:

The target element is either in the retentate or the filtrate.

Next possible test:

- Gravimetric
- Titration
- Optic



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CY15095-09Nov20-FL

