



SCIENTIFIC SERVICES LABORATORIES

GENERAL OVERVIEW
AND CAPABILITIES

What We Do

We are the only global and independent provider of filter solutions and scientific services.



Filters



We manufacture a wide range of filters, but it is our industry knowledge that help manufacturers of combustible tobacco products and Next Generation Products (NGPs) tap on emerging trends and grow their businesses.

Scientific Services



We offer independent commercial testing services to help customers meet regulatory and product development requirements.

We have 100 years of expertise in filter design and production.

- > Through partnerships with our customers, we create filters that perfectly align with our customers' unique requirements to enhance their brands.
- > Filtrona is an end-to-end partner from concept to commercialisation.

With multiple manufacturing sites worldwide, we ensure timely and cost-effective delivery of products.

- > Filtrona has 9 manufacturing facilities, 2 Innovation Centres, 1 accredited laboratory, and a Centre of Excellence focused on sustainability.
- > Our advanced R&D centres collaborate with leading material suppliers, research institutions, and universities to stay at the forefront of filter technology and materials.

Established since 1950, Filtrona Scientific Services has extensive experience and knowledge.

- > Our state-of-the-art laboratories in Indonesia are ISO17025-accredited.
- > We provide chemicals and physical testing for combustible tobacco products and NGPs.

Scientific Services

Combustible Tobacco Products
Testing Services

Next Generation Products
Testing Services

Laboratories Instrumentation

Appendix: Laboratories
Capabilities



Scientific Services Laboratories

At the forefront of tobacco testing, Filtrona Scientific Services offers unmatched expertise and precision. Our accredited laboratories and global connections ensure that your products meet the highest standards, driving innovation and excellence in every test.



1.



Accredited Testing Methods:



We conduct thorough tests on all tobacco products, including cigarettes, e-cigarettes, oral tobacco, Roll-Your-Own (RYO), and Heated Tobacco Products (HTP).

2.



Experience You Can Rely On for Unmatched Results:



With more than 70 years of experience, you can depend on us to provide precise and accurate results.

3.



Filtrona is connected to a global network:



- › Active Member of CORESTA
- › Active Participant of ACS (Asia Collaborative Study)
- › Active Participant of TSRC (Tobacco Science Research Conference)

4.



Comprehensive Testing with 5 Specialised Laboratories:



- › 2 Chemical Labs for sample preparation and analytical instruments
- › 1 Smoking Lab for HTP and e-cigarettes
- › 1 Smoking Lab for cigars and conventional cigarettes
- › 1 Physical Test Lab and Ignition Propensity Test Lab

Accredited Certification

Our laboratory is ISO17025 accredited by Komite Akreditasi Nasional (KAN). KAN is the National Accreditation body of Indonesia and a signatory of ILAC-MRA (International Laboratory Accreditation Cooperation Mutual Recognition Arrangement).



Your Go-To Laboratories For All Tobacco & Nicotine Testing Requirements



Provide testing for regulatory submissions



Perform testing of combustible tobacco products



Perform testing of NGPs



Provide analytical testing to support Product Development



Joint research with National and International Scientific Research Bodies



Develop new test methods to expand laboratory services

Combustible Tobacco Products Testing Services



CIGARETTE & CIGAR:
Determination of Hoffman
Analytes in Cigarette Smoke

Mainstream Smoke



4 smoking machines for cigarette, 1 linear smoking machine for cigar & various analytical instruments



Smoking based on ISO and Canadian intense



Testing 49 smoke analytes for cigarette and 3 smoke analytes for cigar

CIGARETTE:
Determination of Hoffman
Analytes in Cigarette Smoke

Sidestream Smoke
(Environmental Tobacco Smoke)



1 smoking machine & various analytical instruments



Smoking based on ISO and Canadian intense



Testing 47 smoke analytes

TOBACCO:
Testing Compounds
in Tobacco



Multiple types of instrumentation (GC and LC with various types of detectors, continuous flow analyser, ion chromatography and inductively coupled plasma mass spectrometry detector)



Testing 165 compounds in tobacco

Next Generation Product Testing Services

HEATED TOBACCO PRODUCTS (HTP)



1 smoking machine & various analytical instruments



Smoking based on Canadian Intense



Testing 47 aerosol analytes, physical test and thermal profile

E-LIQUID & E-CIGARETTE

Testing of Liquids and Aerosols



Multiple types of instrumentation (GC and LC with various types of detector, auto analyser)



Testing 29 analytes in e-liquid and 37 analytes in aerosol of e-cigarette

Laboratories Instrumentation



At Filtrona Scientific Services, we stay ahead of technical and regulatory demands with cutting-edge laboratory instruments.

Our extensive range of instruments supports advanced research, precise regulatory testing, and routine analysis.

We deliver reliable data and innovative solutions, ensuring you are equipped for the future.

Analytical Instruments and Equipment

Linear Smoking Machine

Rotary Smoking Machine

Sidestream Smoking Machine

Vaping Machine

equipped with thermal sensor and puff by puff profile

Gas Chromatography

with various detector: (Mass Spectrometry Detector (GC-MS & GC-MS/MS), Flame Ionization Detector (GC-FID) and Thermal Conductivity Detector (GC-TCD).

Liquid Chromatography

with various detector: (LC-MS/MS; HPLC-UV/FLD)

Inductively Coupled Plasma Mass Spectrometry Detector (ICP-MS/MS)

Continuous Flow Analyser (CFA)

Ion Chromatography (IC)

NO/NOx Analyser

CO Analyser

pH Meter

Microwave Digestion

Physical Test Instruments

Quality Test Module (QTM)

Quantum Neo

Permeability Tester

Digital Length Tester

Particle Breakthrough (PBT)

Appendix

Laboratories Capabilities

- › Combustible Tobacco Products
- › Next Generation Products



Laboratories Capabilities

COMBUSTIBLE TOBACCO PRODUCTS

CIGARETTE

Mainstream Smoke

Sidestream Smoke

Chemicals Testing

Tar, Nicotine and Carbon Monoxide (TNCO)

Tar, Nicotine and Carbon Monoxide (TNCO)

Tobacco Specific Nitrosamines (TSNA)

Tobacco Specific Nitrosamines (TSNA)

NO/NOx

NO/NOx

Menthol

Menthol

Carbonyls

Carbonyls

Ammonia

Ammonia

Nicotine Retention

Hydrogen Cyanide

Hydrogen Cyanide

Eugenol

Eugenol

Semi Volatile Compounds

Semi Volatile Compounds

Volatile Organic Compounds

Volatile Organic Compounds

Aromatic Amines

Aromatic Amines

pH

Benzo[a]pyrene

Benzo[a]pyrene

Mercury

Mercury

Metals

Metals

Physical Testing

Cigarette Weight

Circumference

Pressure Drop (Resistance to Draw)

Tipping Ventilation

Ignition Propensity

Cigarette Length

Tobacco Weight

Paper Porosity

Ash & Sand Content

Laboratories Capabilities

COMBUSTIBLE TOBACCO PRODUCTS

	TOBACCO & CUT FILLER	CIGAR	CIGARETTE FILTER
	Mainstream Smoke	Mainstream Smoke	
Chemicals Testing	Tobacco Specific Nitrosamines (TSNA)	Tar, Nicotine and Carbon Monoxide (TNCO)	Triacetin
	Ammonia		Menthol
	pH		Propylene Glycol
	Benzo[a]pyrene		Try Ethyl Citrate
	Mercury		Polyethylene Glycol 400
	Metals		Glycerol
	Nicotine and Minor Alkaloid (NMA)		BTEX (Benzene, Toluene, Ethyl Benzene, Xylene)
	Nitrat, Sodium Propionat and Sorbic Acid		
	Humectants & Phenolic compounds		
	Pyrazines/Alcohols		
	Acids		
	Esters		
	Miscellaneous:(Coumarin, Methyl Coumarin, Sclareolide, Caffein,Theobromine, Glycyrrhizic acid, 5-ethyl-3-hydroxy-4-methyl-2 (5h) -furanone).		
	Carbonyls		
	Citric Acid		
	Try Ethyl Citrate		
	Reducing Sugar		
	Moisture Content (OV)		
Physical Testing		Cigar Weight	Filter Weight
		Cigar Diameter	Circumference
		Pressure Drop (Resistance to Draw)	Pressure Drop
		Cigar Length	Filter Length
			Filter Tip Pressure Drop

Laboratories Capabilities

NEXT GENERATION PRODUCTS

	Heated Tobacco Products	E-Liquid	E-Cigarette	Nicotine Pouch
Chemicals Testing	Basic Aerosol : ACM, Nicotine, CO, Propylene Glycol, Glycerine and Triacetin	Tobacco Specific Nitrosamines (TSNA)	Basic Aerosol : ACM, Nicotine, Water, CO, Menthol, Glycerol and Propylene Glycol	Nicotine
	Tobacco Specific Nitrosamines (TSNA)	Metals & Mercury	Volatile Organic Compounds	Water
	NO/NOx	Humectant	Glycidol & Butanol	pH
	Phenolic Compounds	Ester	Carbonyl	
	Menthol	Carbonyl	Tobacco Specific Nitrosamines (TSNA)	
	Carbonyls	Propionic acid	Phenolic Compounds	
	Ammonia	Nicotine, Menthol, Propylene Glycol and Glycerine	Benzo[a]pyrene	
	Semi Volatile Compounds			
	Volatile Organic Compounds			
	Aromatic Amines			
	Benzo[a]pyrene			
	Mercury			
	Metals			
	Acrylamide & Acetamide			

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Contact: