

## CORESTA Recommended Methods and Correspondence with ISO Standards

**DISCLAIMER:** This table is made available for the convenience of tobacco researchers and is for information purposes only. The precise correlation or equivalence between CORESTA Recommended Methods (CRM) and ISO Standards has the potential to vary greatly at any point in time because the CRMs and ISO Standards are revised and updated independently.

CRM	TITLE	ISO correspondence
CRM No. 1	Determination of Dithiocarbamates in Tobacco	ISO 6466
<i>CRM No. 2 Withdrawn May 2014 (obsolete)</i>	<i>Determination of Organochlorine Pesticide Residues on Tobacco</i>	ISO 4389
<i>CRM No. 3 Replaced by CRM40</i>	<i>Determination of the Air Permeability of Cigarette Paper</i>	
<i>CRM No. 4 Withdrawn June 2013 (obsolete)</i>	<i>Determination of Maleic Hydrazide Residues in Tobacco</i>	ISO 4876
CRM No. 5	Determination of Carbon Monoxide in the Mainstream Smoke of Cigarettes by Non-Dispersive Infrared Analysis	ISO 8454 ISO 22947
CRM No. 6	Measurement of Ventilation: Definitions and Measurement Principles	ISO 9512
CRM No. 7	Determination of Nicotine in the Mainstream Smoke of Cigarettes by Gas Chromatographic Analysis	ISO 10315 ISO 22253
CRM No. 8	Determination of Water in the Mainstream Smoke of Cigarettes by Gas Chromatographic Analysis	ISO 10362-1
CRM No. 9	Determination of Nicotine in Cigarette Filters by Gas Chromatographic Analysis	
<i>CRM No. 10 Replaced by CRM23</i>	<i>Machine Smoking of Cigarettes - Determination of Crude and Dry Smoke Condensate</i>	
CRM No. 12	Determination of Alkaloids in Cigarette Smoke Condensate	ISO 3400
CRM No. 13	Determination of Alkaloid Retention by Cigarette Filters	ISO 3401
<i>CRM No. 14 Replaced by CRM50</i>	<i>Determination of Nicotine in Ambient Air by Gas Chromatographic Analysis</i>	
CRM No. 15	Cigarettes - Determination of Water in Smoke Condensates - Karl Fischer Method	ISO 10362-2
CRM No. 16	Lamina Strip Particle Size Determination	ISO 12194
CRM No. 17	Stem Content of Lamina Strips	ISO 12195

<b>CRM</b>	<b>TITLE</b>	<b>ISO correspondence</b>
<i>CRM No. 18 Replaced by CRM40</i>	<i>Materials used as Cigarette Tipping Papers having a Perforated Zone - Determination of Unit Airflow and Permeability</i>	
CRM No. 20	Determination of Alkaloids in Manufactured Tobacco	ISO 2881
CRM No. 21	Atmosphere for Conditioning and Testing Tobacco and Tobacco Products	ISO 3402
CRM No. 22	Routine Analytical Cigarette-Smoking Machine: Specifications, Definitions and Standard Conditions	ISO 3308
CRM No. 23	Determination of Total and Nicotine-Free Dry Particulate Matter using a Routine Analytical Cigarette-Smoking Machine Determination of Total Particulate Matter and Preparation for Water and Nicotine Measurements	ISO 4387
CRM No. 24	Cigarettes - Sampling	ISO 8243
CRM No. 25	Ambiant Airflow around Cigarettes in Routine Analytical Smoking Machines: Control and Monitoring	ISO 3308 ISO 20778
<i>CRM No. 30 Withdrawn May 2014 (obsolete)</i>	<i>Determination of Residues of the Suckercide Flumetralin (Prime Plus, CGA-41065) on Tobacco</i>	
<i>CRM No. 31 Withdrawn May 2014 (obsolete)</i>	<i>Determination of Residues of the Suckercide Pendimethalin (Accotab, Stomp) on Tobacco</i>	
<i>CRM No. 32 Withdrawn May 2014 (obsolete)</i>	<i>Determination of Residues of the Suckercide Off-Shoot-T (N-Alkanol Mixture) on Tobacco</i>	
CRM No. 33	Determination of Acetate in Cigarette Paper	ISO 20370
CRM No. 34	Determination of Citrate in Cigarette Paper	ISO 20369
<i>CRM No. 35 Replaced by CRM85</i>	<i>Determination of Total Alkaloids (as Nicotine) in Tobacco by Continuous Flow Analysis</i>	ISO 15152
CRM No. 36	Determination of Nitrate in Tobacco and Smokeless Tobacco Products by Reduction to Nitrite and Continuous Flow Analysis	ISO 15517
CRM No. 37	Determination of Reducing Substances in Tobacco by Continuous Flow Analysis	ISO 15153
CRM No. 38	Determination of Reducing Carbohydrates in Tobacco by Continuous Flow Analysis	ISO 15154
CRM No. 39	Determination of the Purity of Nicotine and Nicotine Salts by Gravimetric Analysis - Tungstosilicic Acid Method	ISO 13276

CRM	TITLE	ISO correspondence
CRM No. 40 <i>Withdrawn Jan 2017 (obsolete)</i>	<i>Determination of Air Permeability of Materials used as Cigarette Papers, Filter Plug Wrap and Filter Joining Paper including Materials having an Oriented Permeable Zone</i>	ISO 2965
CRM No. 41	Determination of the Draw Resistance of Cigarettes and Filter Rods	ISO 6565
CRM No. 42	Atmosphere for Conditioning and Testing Fine-Cut Tobacco and Fine-Cut Smoking Articles	ISO 15592-2
CRM No. 43	Fine-Cut Tobacco - Sampling	ISO 15592-1
CRM No. 45	Determination of Phosphate in Cigarette Paper	
CRM No. 46	Atmosphere for Conditioning and Testing Cigars of all Sizes and Shapes	
CRM No. 47	Cigars – Sampling	
CRM No. 50	Environmental Tobacco Smoke - Determination of Nicotine and 3-Ethenylpyridine in the Vapour Phase	ISO 18145
CRM No. 51	Environmental Tobacco Smoke - Estimation of its Contribution to Respirable Suspended Particles - Determination of Particulate Matter by Ultraviolet Absorbance and by Fluorescence	ISO 15593
CRM No. 52	Environmental Tobacco Smoke - Estimation of its Contribution to Respirable Suspended Particles - Method based on Solanesol Determination	ISO 18144
CRM No. 53	Determination of Paper Wrapper Burn Speed	
CRM No. 54	Determination of Nicotine and Nicotine-Free Dry Particulate Matter in Sidestream Smoke using a Fishtail Chimney and a Routine Analytical/Linear Smoking Machine	ISO 20773
CRM No. 55	Determination of Carbon Monoxide in the Vapour Phase of Cigarette Sidestream Smoke using a Fishtail Chimney and a Routine Analytical/Linear Smoking Machine	ISO 20774
CRM No. 56	Determination of Water in Tobacco and Tobacco Products by Karl Fischer Method	ISO 6488
CRM No. 57	Determination of Water in Tobacco and Tobacco Products by Gas Chromatographic Analysis	ISO 16632
CRM No. 58	Determination of Benzo[a]Pyrene in Mainstream Cigarette Smoke by Gas Chromatography-Mass Spectrometry Method	ISO 22634-1 ISO 23906-1
CRM No. 59	Determination of Triacetin in Filter Rods by Gas Chromatographic Analysis	
CRM No. 60	Determination of 1,2-Propylene Glycol and Glycerol in Tobacco and Tobacco Products by Gas Chromatography	
CRM No. 61	Determination of 1,2-Propylene Glycol, Glycerol and Sorbitol in Tobacco and Tobacco Products by High Performance Liquid Chromatography (HPLC)	
CRM No. 62	Determination of Nicotine in Tobacco and Tobacco Products by Gas Chromatographic Analysis	
CRM No. 63	Determination of Tobacco Specific Nitrosamines in Cigarette Mainstream Smoke - GC-TEA Method	ISO 22303 ISO 22304

CRM	TITLE	ISO correspondence
CRM No. 64	Routine Analytical Cigar-Smoking Machine - Specifications, Definitions and Standard Conditions	
CRM No. 65	Determination of Total and Nicotine-Free Dry Particulate Matter using a Routine Analytical Cigar-Smoking Machine – Determination of Total Particulate Matter and Preparation for Water and Nicotine Measurements	
CRM No. 66	Determination of Nicotine in the Mainstream Smoke of Cigars by Gas Chromatographic Analysis	
CRM No. 67	Determination of Water in the Mainstream Smoke of Cigars by Gas Chromatographic Analysis	
CRM No. 68	Determination of Carbon Monoxide in the Mainstream Smoke of Cigars by Non-Dispersive Infrared Analysis	
CRM No. 69	Determination of pH in Tobacco and Tobacco Products	ISO 21109 (scope limited to nicotine pouches)
CRM No. 70	Determination of Selected Volatile Organic Compounds in the Mainstream Smoke of Cigarettes - Gas Chromatography-Mass Spectrometry Method	ISO 21330 ISO 23923
<i>CRM No. 71 Withdrawn June 2020 (obsolete)</i>	<i>Smokeless Tobacco Products - Sampling</i>	
CRM No. 72	Determination of Tobacco Specific Nitrosamines in Tobacco and Tobacco Products by Liquid Chromatography - Tandem Mass Spectrometry	ISO 21766
<i>CRM No. 73 Superseded by CRM79</i>	<i>Determination of Ammonia in Tobacco by Ion Chromatographic Analysis</i>	
CRM No. 74	Determination of Selected Carbonyls in Mainstream Cigarette Smoke by High Performance Liquid Chromatography (HPLC)	ISO 21160 ISO 23922
CRM No. 75	Determination of Tobacco Specific Nitrosamines in Mainstream Cigarette Smoke by LC-MS/MS	ISO 19290 ISO 23921
CRM No. 76	Determination of Moisture Content (Oven Volatiles) of Tobacco and Tobacco Products	
CRM No. 77	Determination of Diffusion Capacity by Measurement of CO <sub>2</sub> Transfer Rate Through Materials Used as Cigarette Papers and Cigarette Papers having an Oriented Zone of Reduced Diffusion Capacity	
CRM No. 78	Determination of Selected Phenolic Compounds in Mainstream Cigarette Smoke by HPLC-FLD	ISO 23904 ISO 23905
CRM No. 79	Determination of Ammonia in Tobacco and Tobacco Products by Ion Chromatographic Analysis	ISO 21045

CRM	TITLE	ISO correspondence
CRM No. 80	Use of the Part-Filter Method for the Estimation of Smokers' Exposure to Nicotine and Nicotine-Free Dry Particulate Matter	
CRM No. 81	Routine Analytical Machine for E-Cigarette Aerosol Generation and Collection - Definitions and Standard Conditions	ISO 20768
CRM No. 82	Determination of Benzo[a]pyrene in Tobacco Products by GC-MS	
CRM No. 83	Determination of Ammonia in Mainstream Cigarette Smoke by Ion Chromatography	ISO 23919 ISO 23920
CRM No. 84	Determination of Glycerin, Propylene Glycol, Water, and Nicotine in the Aerosol of E-Cigarettes by Gas Chromatographic Analysis	ISO 24199
CRM No. 85	Tobacco - Determination of the Content of Total alkaloids as Nicotine - Continuous-Flow Analysis Method using KSCN/DCIC	ISO 22980
CRM No. 86	Determination of Select Carbonyls in Tobacco and Tobacco Products by UHPLC-MS/MS	
CRM No. 87	Determination of Nicotine in Tobacco Products by GC/MS	
CRM No. 88	Determination of Water Activity of Tobacco and Tobacco Products	
CRM No. 89	Tobacco – Determination of the Content of Total Sugars – Continuous-Flow Analysis Method using Hydrochloric Acid / P-Hydroxy Benzoic Acid Hydrazide (PAHBAH)	
CRM No. 90	Determination of Dry and Wet Sealing Strength of Pouches for Smokeless Tobacco and Derivative Products - Definitions and Measurement Principles	
CRM No. 91	Determination of 15 PAHs in Tobacco and Tobacco Products by GC-MS/MS or GC-MS	
CRM No. 92	Determination of Menthol in Cigarettes and Cut Filler by Gas Chromatography	
CRM No. 93	Determination of Selected Metals in Tobacco Products by ICP-MS	
CRM No. 94	Determination of Crush Strength of Flavour Capsules for Filters – Definitions and Measurement Principles	
CRM No. 95	Determination of Aromatic Amines in Mainstream Cigarette Smoke by Gas Chromatography Mass Spectrometry with Negative Chemical Ionisation (GC/MS(NC!))	
CRM No. 96	Determination of Formaldehyde and Acetaldehyde in E-Vapour Product Aerosol	ISO 24211
CRM No. 97	Determination of Menthol in Mainstream Cigarette Smoke with an Intense Smoking Regime by Gas Chromatography	
CRM No. 98	Determination of Select Metals in E-Liquid by ICP-MS	
CRM No. 99	Definitions and Standard Conditions: Aerosol Generation and Collection for Aerosol Heated Tobacco Products	ISO 5501-2

<b>CRM</b>	<b>TITLE</b>	<b>ISO correspondence</b>
CRM No. 100	Definitions and Standard Conditions: Aerosol Generation and Collection for Carbon Heated Tobacco Products	ISO 5501-3
CRM No. 101	Definitions and Standard Conditions: Aerosol Generation and Collection for Electrically Heated Tobacco Products	ISO 5501-1
CRM No. 102	Determination of Tobacco-Specific Nitrosamines in E-Liquid by LC-MS/MS	
CRM No. 103	Determination of Nitrate in Tobacco and Tobacco Products by Ion Chromatography	
CRM No. 104	Determination of Oxides of Nitrogen (NO <sub>x</sub> ) in Mainstream Cigarette Smoke by Chemiluminescence	
CRM No. 105	Determination of Nicotine Impurities and Degradants in Nicotine Pouches by LC-MS/MS	
CRM No. 106	Determination of Hydrogen Cyanide in Mainstream Cigarette Smoke by Continuous Flow Analyzer	