



Physical Test Methods (PTM) Sub-Group Report

Cancún, Mexico

12th of October, 2023



- **The PTM Sub-Group**
- **Objectives**
- **Collaborative Studies**
- **Round Robin Tests**
- **Systematic Document Review**
- **Future Work Items**
- **Next Meeting**



The PTM Sub-Group

- **Sub-Group established in 2007**
 - about 20 active members (48 on the distribution list)
- **Executives**
 - **Coordinator** **Bernhard EITZINGER**
 - **Secretary** **Patricia MÜLLER**
 - **SC Liaison** **Bernhard EITZINGER**
- **Meetings**
 - **36th Meeting** **Antibes, France** **April 19th, 2023**
 - **37th Meeting** **Milton Keynes, UK** **September 19th, 2023**

- 1. To propose and maintain CORESTA Recommended Methods (CRMs) and related documents for the physical testing of tobacco, tobacco products and their components.**
 - 2. To organise interlaboratory testing related to Objective 1.**
- No change since June 2018.**



Published Documents

- **PTM-335 15th Collaborative Study on Physical Parameters** **Mar 2023**
- **PTM-336 5th Proficiency Test on Diffusion Capacity** **Nov 2022**
- **PTM-212 8th Round Robin Test on Filter Ventilation Standards** **Nov 2022**
- **PTM-338 2nd Collaborative Study on Crush Strength** **Jun 2023**



Collaborative Study on Physical Parameters

- **PTM-368 16th Collaborative Study on Physical Parameters**
- **Measurement of filters and cigarettes**
 - **Filters** weight, diameter, pressure drop
 - **Cigarettes** weight, diameter, open draw resistance
closed draw resistance, filter ventilation
- **5 filters, 5 cigarettes, 5 replicate measurements on different days**
- **Monitoring of CRM 6, CRM 41, ISO 6565, ISO 9512, ISO 2971**
- **Accreditation of participating laboratories**



Collaborative Study on Physical Parameters

- **PTM-368 16th Collaborative Study on Physical Parameters**
 - 28 participants (43 sample sets distributed)
 - Samples and protocol distributed in July
 - Measurements completed (deadline September 30th)
 - Pre-treatment of data by outlier testing on individual values
 - Statistical evaluation to be done
 - Technical Report to be published Jan 2024



Collaborative Study on Air Permeability

- **PTM-369 3rd Collaborative Study on Air Permeability**
 - **Measurement of air permeability (ISO 2965:2019)**
 - Cigarette paper (10×20 mm and 2×15 mm head)
 - Plug wrap paper
 - 2 Tipping papers (electro-perforated, laser-perforated)
 - **12 participants (20 sample sets distributed)**
 - **Samples distributed in June**
 - **Measurements completed (deadline September 11th)**
 - **20 data sets received**
 - **Statistical evaluation done**
 - **Technical Report to be published until end of 2023**



Round Robin Tests on Calibration Standards

- **Pressure Drop Calibration Standards**
 - PTM-271 16th Round Robin Test on Pressure Drop – draft report prepared
 - PTM-370 17th Round Robin Test on Pressure Drop – ongoing
 - PTM-317 1st Round Robin Test on Low PD – draft report prepared
- **Filter Ventilation Calibration Standards**
 - PTM-344 9th Round Robin Test on Filter Ventilation – to be completed
 - PTM-390 10th Round Robin Test on Filter Ventilation – to be started
- **Air Permeability Calibration Standards**
 - PTM-211 6th Round Robin Test on Air Permeability – to be completed
 - PTM-389 7th Round Robin Test on Air Permeability – to be started



Systematic Document Review

• CRM 06 – Ventilation (1983)	ISO 9512	confirmed	09/2021
• CRM 16 – Lamina Particle Size (1991)	ISO 12194	confirmed	09/2023
• CRM 17 – Stem Content (1991)	ISO 12195	confirmed	09/2023
• CRM 41 – Draw Resistance (2007)	ISO 6565	confirmed	09/2023
• CRM 53 – Wrapper Burn Speed (2002)		revised	01/2019
• CRM 77 – Diffusion Capacity (2014)		revised	06/2019
• CRM 90 – Pouch Sealing Strength (2019)		published	03/2019
• CRM 94 – Flavor Capsule Crush Strength (2020)		published	08/2020



Systematic Document Review

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|--|----------------|----------------|
| • Guide No. 04 – Pressure Drop | revised | 01/2019 |
| • Guide No. 06 – Use of Balances | revised | 01/2020 |
| • Guide No. 10 – Diameter | revised | 03/2020 |
| • Guide No. 14 – Diffusion Capacity | revised | 06/2019 |

- **17th Collaborative Study on Physical Parameters**
 - **New cigarette and filter samples required**
- **6th Proficiency Test on Diffusion Capacity**
 - **Based on CRM 77**
- **Round Robin Tests on Calibration Standards**
 - **Inclusion of slim filter ventilation standard**
 - **Inclusion of low pressure drop standard**

- **Measurement of low pressure drops**
 - Experiments and simulations with calibration standards
 - Round Robin Test on low pressure drop calibration standard
- **Extension of CRMs to HTPs and their components**
 - Survey: 15/28 laboratories were interested
 - Open questions
 - Sample production and distribution
 - Measurement and protocol
 - Proficiency test or collaborative study?
 - Is there a need for standardization?



38th Meeting of the PTM Sub-Group

April or May, 2024

Location to be decided

Thank you!