



# **Physical Test Methods (PTM) Sub-Group Report**

**2022 CORESTA Congress Online**

**October 2022**



- ❖ **The PTM Sub-Group**
- ❖ **Objectives**
- ❖ **Collaborative Study on Physical Parameters**
- ❖ **Round Robin Tests on Calibration Standards**
- ❖ **Other Work Items**
- ❖ **Systematic Document Review**
- ❖ **Future Work Items**
- ❖ **Next Meeting**



# The PTM Sub-Group

## ❖ Sub-Group established in 2007

- about 20 active members (44 on the distribution list)

## ❖ Executives

- **Coordinator**                      **Bernhard EITZINGER**
- **Secretary**                         **Patricia MÜLLER**
- **SC Liaison**                         **Bernhard EITZINGER**

## ❖ Meetings

- **34<sup>th</sup> Meeting**                      **Web Meeting**                      **April 20-21, 2022**
- **35<sup>th</sup> Meeting**                      **Web Meeting**                      **September 20-21, 2022**



# Objectives

- 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

Project No.	Type	Project name	Publication Month
<b>PTM-302</b>	TR	2 <sup>nd</sup> Collaborative Study on Air Permeability	December 2021
<b>PTM-303</b>	TR	14 <sup>th</sup> Collaborative Study on Physical Parameters	January 2022

# Annual Collaborative Study

- ❖ **PTM-335 15<sup>th</sup> 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 CRMs 6, 41 and respective ISO standards**



# Annual Collaborative Study

- ❖ **PTM-335 15<sup>th</sup> Collaborative Study on Physical Parameters**
- ❖ **27 Participants (29 filter sample set, 33 cigarette sample sets)**
- ❖ **Samples and protocol distributed in June**
- ❖ **Measurements to be completed (deadline September 30<sup>th</sup>)**
- ❖ **Statistical evaluation and report under preparation**

## ❖ Pressure Drop Calibration Standards

- PTM-271 16<sup>th</sup> RR Test – Circulation of standards ongoing
- PTM-317 Low Pressure Drop RR Test – Circulation ongoing

## ❖ Filter Ventilation Calibration Standards

- PTM-212 8<sup>th</sup> RR Test – Report in publication process
  - including slim calibration standards

## ❖ Air Permeability Calibration Standards

- PTM-211 6<sup>th</sup> RR Test – Circulation of standards ongoing





# Proficiency Test on Diffusion Capacity

- ❖ **PTM-336 5<sup>th</sup> Proficiency Test on Diffusion Capacity (CRM 77)**
- ❖ **Protocol**
  - **2 LIP cigarettes papers with different band diffusion capacity**
  - **3 replicates of 10-20 measurements**
- ❖ **8 participants, 14 sample sets, distributed in June**
- ❖ **Measurement, data analysis and reporting until end of 2022**



# Collaborative Study on Crush Strength

- ❖ **PTM-338 2<sup>nd</sup> Collaborative Study on Capsule Crush Strength (CRM94)**
- ❖ **Protocol**
  - **3 different capsules (2,8 mm and 3,5 mm diameter, 9 N to 15 N)**
  - **3 replicates per day, 30 measurements per replicate, 3 days**
- ❖ **17 participants, 21 sample sets, distributed in August**
- ❖ **Measurement, data analysis and reporting completed early 2023**



# Systematic Document Review

❖ CRM 06 – Ventilation (1983)	ISO 9512	reviewed	09/2021
❖ CRM 16 – Lamina Particle Size (1991)	ISO 12194	confirmed	10/2018
❖ CRM 17 – Stem Content (1991)	ISO 12195	confirmed	10/2018
❖ CRM 41 – Draw Resistance (2007)	ISO 6565	confirmed	10/2018
❖ 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

❖ 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

## ❖ **16<sup>th</sup> Collaborative Study on Physical Parameters**

- **5 filters, 5 cigarettes**
- **Weight, diameter, pressure drop, ventilation**
- **Scheduled as routine work item in 2023**

## ❖ **3<sup>rd</sup> Collaborative Study on Air Permeability**

- **Based on ISO 2965:2019**
- **Scheduled as routine work item in 2023**

- ❖ **Measurement of low pressure drops**
  - Various calibration standards have been tested
  - Further discussions to take place
  
- ❖ **Extension of CRMs to HTPs and their components**
  - CRM 06 – Ventilation
  - CRM 41 – Draw Resistance
  - Guide 04 – Draw Resistance
  - Guide 06 – Use of Balances



# Next Meeting

**36<sup>th</sup> Meeting of the PTM Sub-Group**

**April or May, 2023**

**Type of meeting and location to be decided**



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**Thank you!**