



Sub-Group Report

Physical Test Methods (PTM)

Annual Report

CORESTA Congress Online

September 2020



- ❖ **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

- 15-20 active members (46 on the distribution list)

❖ Executives

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

❖ Meetings

- 30th Meeting Web Meeting April 29, 2020



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

ID	Project Title	Status	Time
PTM-217	1 st Collaborative Study on Air Permeability	TR published	11/2019
PTM-239	Revision of Guide No. 10 on Measurement of Diameter	TG updated	03/2020
PTM-218-1	Collaborative Study on Crush Strength of Flavor Capsules	TR published	08/2020
PTM-218-2	CRM 94 on Crush Strength of Flavor Capsules	CRM published	08/2020



Annual Collaborative Study

- ❖ **PTM-240 13th 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-240 13th Collaborative Study on Physical Parameters**
- ❖ **25 Participants (32 sample sets)**
- ❖ **Samples and protocol distributed in July**
- ❖ **Measurements to be completed (deadline September 30th)**
- ❖ **Statistical evaluation and report under preparation**



❖ Pressure Drop Calibration Standards

- PTM-209 15th RR Test – Technical Report under preparation
- PTM-271 16th RR Test – Circulation of standards recently started

❖ Filter Ventilation Calibration Standards

- PTM-212 8th RR Test – Circulation of standards ongoing
 - including slim calibration standards



Round Robin Tests

❖ Air Permeability Calibration Standards

- PTM-152 5th RR Test – Technical Report under preparation
- PTM-211 6th RR Test – Circulation of standards ongoing



Proficiency Test on Diffusion Capacity

- ❖ **PTM-260 4th Proficiency Test on Diffusion Capacity**
 - **7 Participants (13 sample sets)**
 - **2 LIP cigarette papers with different band diffusion capacity**
 - **Measurements following CRM 77**
 - **Samples and protocol distributed in July**
 - **Measurements completed (deadline August 31st)**
 - **Statistical evaluation and report under preparation**



❖ **PTM-218 CRM on Capsule Crush Strength**

- **CRM to measure the crush strength of flavor capsules for filters**
- **Project launched in May 2019**
- **8 participants**
- **Collaborative study carried out in spring 2020**
- **Technical Report on collaborative study published in August 2020**
- **CRM 94 published in August 2020**



Systematic Document Review

❖ CRM 06 – Ventilation (1983)	ISO 9512	revised	09/2016
❖ 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



Future Work Items

❖ Permeability of Pouch Materials

- Various methods were discussed
- Air permeability measurement to be evaluated as substitute

❖ 2nd Collaborative Study on Air Permeability

- Based on ISO 2965:2019 (including 2 mm × 15 mm head)
- Scheduled as routine work item in 2021



Future Work Items

❖ Measurement of Low Pressure Drops

- Flow simulation and testing of potential calibration standards
- Potential inclusion of calibration standards in RR test
- Compensation model for T, p and rH may not be applicable



Next Meeting

31st Meeting of the PTM Sub-Group

September 22-23, 2020

Web Meeting



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31st Meeting of the PTM Sub-Group

September 22-23, 2020

Web Meeting

THANK YOU!