



Sub-Group Report Physical Test Methods (PTM)

Kunming, China

October 25, 2018



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



The PTM Sub-Group

❖ Sub-Group established in 2007

- 22 members

❖ Executives

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

❖ Meetings

- **26th Meeting** **Vienna, Austria** **May 24, 2018**
- **27th Meeting** **Kunming, China** **October 22, 2018**

- 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.**
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- ❖ Revised objectives were harmonized between RAC, SMA, TTPA and PTM.**
 - ❖ „tobacco“ added to the scope of PTM.**



Published Documents

ID	Project Title	Status	Time
PTM-122	10 th Collaborative Study on Physical Parameters	TR published	03/2018
PTM-112	12 th Round Robin Test on Pressure Drop Calibration Standards	TR published	12/2017
PTM-124	5 th Round Robin Test on Filter Ventilation Calibration Standards	TR published	06/2018
PTM-022	4 th Round Robin Test on Air Permeability Calibration Standards	TR published	10/2018



Annual Collaborative Study

- ❖ **PTM-167 11th Collaborative Study on Physical Parameters**
- ❖ **Measurement of Filters and Cigarettes**
 - **Filters** weight, diameter, pressure drop
 - **Cigarettes** weight, diameter, open draw resistance
 close 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-167 11th Collaborative Study on Physical Parameters**
- ❖ **16 Participants (18 sample sets)**
- ❖ **Samples and protocol distributed in June**
- ❖ **Measurements completed (deadline August 31st)**
- ❖ **Statistical evaluation completed**
- ❖ **Technical Report prepared and circulated in PTM SG**
- ❖ **Submitted to SC**

❖ Pressure Drop Calibration Standards

- PTM-112 12th RR Test – Technical Report published
- PTM-159 13th RR Test – Report under preparation
- PTM-197 14th RR Test – Circulation just started

❖ Filter Ventilation Calibration Standards

- PTM-124 5th RR Test – Technical Report published
- PTM-166 6th RR Test – Report under preparation
- PTM-191 7th RR Test – Circulation of standards ongoing

❖ Air Permeability Calibration Standards

- PTM-022 4th RR Test – Technical Report published
- PTM-152 5th RR Test – Circulation of standards ongoing

❖ Improvement in circulation speed due to adapted shipment of standards to China



Systematic Document Review

- ❖ CRM 06 – Ventilation (1983) ISO 9512
- ❖ CRM 16 – Lamina Particle Size (1991) ISO 12194
- ❖ CRM 17 – Stem Content (1991) ISO 12195
- ❖ CRM 41 – Draw Resistance (2007) ISO 6565
- ❖ CRM 40 – Air Permeability (2016) ISO 2965 **Obsolete**
- ❖ CRM 53 – Wrapper Burn Speed (2002)
- ❖ CRM 77 – Diffusion Capacity (2014)



Systematic Document Review

- ❖ **CRM 06 – Ventilation (1983) ISO 9512**
 - Updated in 2016 and confirmed as valid
 - Revision of ISO 9512 ongoing

- ❖ **CRM 16 – Lamina Particle Size (1991) ISO 12194**
 - Confirmed as valid

- ❖ **CRM 17 – Stem Content (1991) ISO 12195**
 - Confirmed as valid

- ❖ **CRM 41 – Draw Resistance (2007) ISO 6565**
 - Confirmed as valid



Systematic Document Review

- ❖ **CRM 53 – Wrapper Burn Speed (2002)**
 - **Confirmed as valid**
 - **Need for editorial revision**

- ❖ **CRM 77 – Diffusion Capacity (2014)**
 - **Confirmed as valid**
 - **Need for technical revision to be further discussed**



Systematic Document Review

- ❖ **Guide No. 04 – Pressure Drop** **Under Revision (PTM-192)**
 - **Statistical procedures and terminology (calibration, adjustment, ...)**
- ❖ **Guide No. 06 – Use of Balances**
 - **Confirmed as valid, need for revision**
- ❖ **Guide No. 10 – Diameter**
 - **Confirmed as valid, need for revision**
- ❖ **Guide No. 14 – Diffusion Capacity**
 - **Confirmed as valid, need for revision together with CRM 77**



❖ CRM on Pouch Sealing Strength

➤ PTM-060-2 CRM

- CRM circulated for comments
- Final version approved by PTM SG

➤ PTM-060-1 Collaborative Study

- Samples and protocol have been distributed
- Measurements have been completed
- Statistical evaluation and report to be done



Future Work Items

❖ Crush Strength of Filter Capsules

- 8 participants for the project
- NWIP will be prepared

❖ Permeability of Pouch Materials

- to be further discussed

❖ Regular Collaborative Study on Air Permeability

- to be further discussed



Next Meeting

28th Meeting of the PTM Sub-Group

April/May 2019

Host to be defined.



Next Meeting

28th Meeting of the PTM Sub-Group

April/May 2019

Host to be defined.

THANK YOU!