



Physical Test Method (PTM) Sub-Group

Jeju Island, Korea - 2015

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- ❖ **Group originally set up as a Task Force in 2005 then to Sub Group in 2007**
- ❖ **Membership has gradually increased around 25 laboratories can now participate**
 - **Cigarette manufacturers,**
 - **Paper – and Filter manufacturers,**
 - **Instrument manufacturers,**
 - **Contract laboratories participate in collaborative studies**
 - **Participation has been increasing annually**



- ❖ **Typically 2 meetings per year**
- ❖ **21 meetings since October 2005**
- ❖ **Next meeting – April, 7th 2016 – Milton Keynes, UK (Host - Cerulean)**
- ❖ **New executives by next meeting – spring 2016:**
 - **Coordinator: Bernhard Eitzinger (delfortgroup AG, Austria)**
 - **Secretary: Jing Yi (ZTRI, China)**

 - **SC Liaison: Nils Rose (Borgwaldt KC, Germany)**



Objectives

- ❖ **To maintain existing CORESTA Recommended Methods (CRM's), pertinent to physical test methods related to cigarettes and cigarette components**
- ❖ **To organize and conduct annual studies in order to assure inter-laboratory consistencies**
- ❖ **To develop user guidelines for the application of methods for physical measurements**



Objectives

- ❖ To identify the need for new methods or for methods to be harmonized
- ❖ To propose new task forces if required
- ❖ To use the results of proficiency testing to enable continual improvement of participating laboratories



❖ PD & Ventilation Standard Cross check

- 11th trial started beginning 2015
- 4 participants (Borgwaldt, Cerulean, Sodim, ZTRI)

❖ AP Standard Cross check of CRM 40

- 7th trial started beginning 2014
- 4 participants (Borgwaldt, Cerulean, Sodim, ZTRI)



❖ Annual proficiency test of physical parameters

- PD, Ventilation, Diameter, Weight
- 2013 proficiency test - internal use
- 2014 proficiency test – report to be available for the PTM SG for comments (11/09) – followed by the n.st. approval by SC
- 2015 proficiency test – in progress



- ❖ **Proficiency test and collaborative study of diffusion capacity – CRM 77**
 - **Maintaining r&R values listed in the CRM 77**
 - **2014 proficiency test approved by SC and Board – published in 07/15**
 - **2014 collaborative study approved by SC and Board – published in 06/15**
 - **2015 proficiency test approved by SC and Board – published in 09/15**
 - **2016: will be no proficiency test**
 - **2017: next proficiency test**



Learnings from preliminary joint experiments

- ❖ **Joint experiments run after agreeing general method and protocol**
 - Statistically designed to investigate effects of parameters that potentially contribute to within-lab and between-lab variability.
 - Step allows training within lab to implement method and generate internal validation data.
 - Participation in such studies is helpful for laboratories achieving and maintaining their ISO 17025 accreditation. Additionally, these studies provide a means for laboratories to assess their performance as compared to their peers and make improvements when their results differ significantly.



Technical Reports published

- ❖ **2015 Proficiency test report – The measurement of diffusion capacity of cigarette papers (09/15)**
- ❖ **Collaborative study to evaluate a paperboard substitute for a diffusion capacity standard (08/15)**
- ❖ **2014 Proficiency test report – The measurement of diffusion capacity of cigarette papers (07/15)**
- ❖ **Tobacco Moisture, Water and Oven volatiles (07/14)**
- ❖ **Comparison of ventilation standard calibration methods (05/12)**
- ❖ **Recommendation of measurement area for AP of Super Slim cigarette paper (05/12)**
- ❖ **Hardness measurements on cigarette and cigarette filter rods (05/12)**
- ❖ **Physical Properties of Special Filters (11/10)**
- ❖ **2009 Interlaboratory Proficiency test (08/10)**



Published Guidelines

- ❖ **CORESTA Guide No.4 (2008)**
 - “ A User Guideline for the Measurement of Pressure Drop of Cigarettes and Cigarette Filter Rods”
- ❖ **CORESTA Guide No.6 (2009)**
 - “ A User Guideline for the Use of Balances for Cigarettes and Cigarette related Products”
- ❖ **CORESTA Guide No.10 (2011)**
 - “ A User Guideline for the Measurement of Diameter of Cigarettes and Filter Rods”
- ❖ **CORESTA Guide No.14 (2014)**
 - “ A User Guide for the Determination of the Diffusion Capacity (D^*) of Cigarette Papers”



Recent published CRM

- ❖ **CORESTA Recommended Method No.77**
 - **“ Determination of Diffusion Capacity by Measurement of CO₂ Transfer Rate Through Materials Used as Cigarette Papers and Cigarette Papers having an oriented zone of Reduced Diffusion Capacity”**



❖ CRM 77 – CRP (CORESTA Reference Product):

- Reference material suitable for the measurement of diffusion capacity – in progress
- Cardboard material under further investigation
- Development of a reference method

❖ CRM for Pouch Sealing Strength – WG5

- In cooperation with the CORESTA Smokeless Tobacco Sub-group
- Develop a CRM for the determination of the seal Strength of finished product
- New working group set up (Coordinator: Oleg Herdt, Borgwaldt KC)
- Draft of the method has been approved by the small working group
- N.st. - Collaborative Study
- Actual status will be presented at the next meeting in spring 2016