

69th TSRC
Naples, Florida

September 21st, 2015

Mario Mayr
QA Manager / Smoke Laboratory
Product Manager FSC
delfortgroup / Wattenspapier, Austria



dunafin



feurstein



op papírna



tervakoski



wattenspapier

Objective

***Does LIPCan filter paper qualify as an alternative substrate
to Whatman No.2 filter paper as allowed for in ISO 12863***



Table of content

- Outline details of the study
- Description of methods
- Sample information
- Status ISO adhoc Filter paper group
- Results on IP
- Statistical evaluation – probability error of 5%
- Conclusion
- Next steps



Outline details of the study

- Comparison of IP - results when using ISO 12863 and ASTM E.2187-09
- Comparison of IP- results when using an alternative filter paper as a substrate
- Using different LIP cigarette samples



Description of methods used

- IP Analysis:

- ISO 12863 “Standard test method for assessing the ignition propensity of cigarettes”
- ASTM E.2187-09 “Standard test method for measuring the ignition strength of cigarettes”



Sample information

- **Four different LIP cigarettes**

- 2 different cigarette brands taken from the Austrian market – KS & Slim
- 1 cigarette brand which was specially developed by dfg for this project
- NIST SRM 1082 Standard Reference Cigarette

- CM7 Test piece as a NON LIP sample

- **Sample codes:**

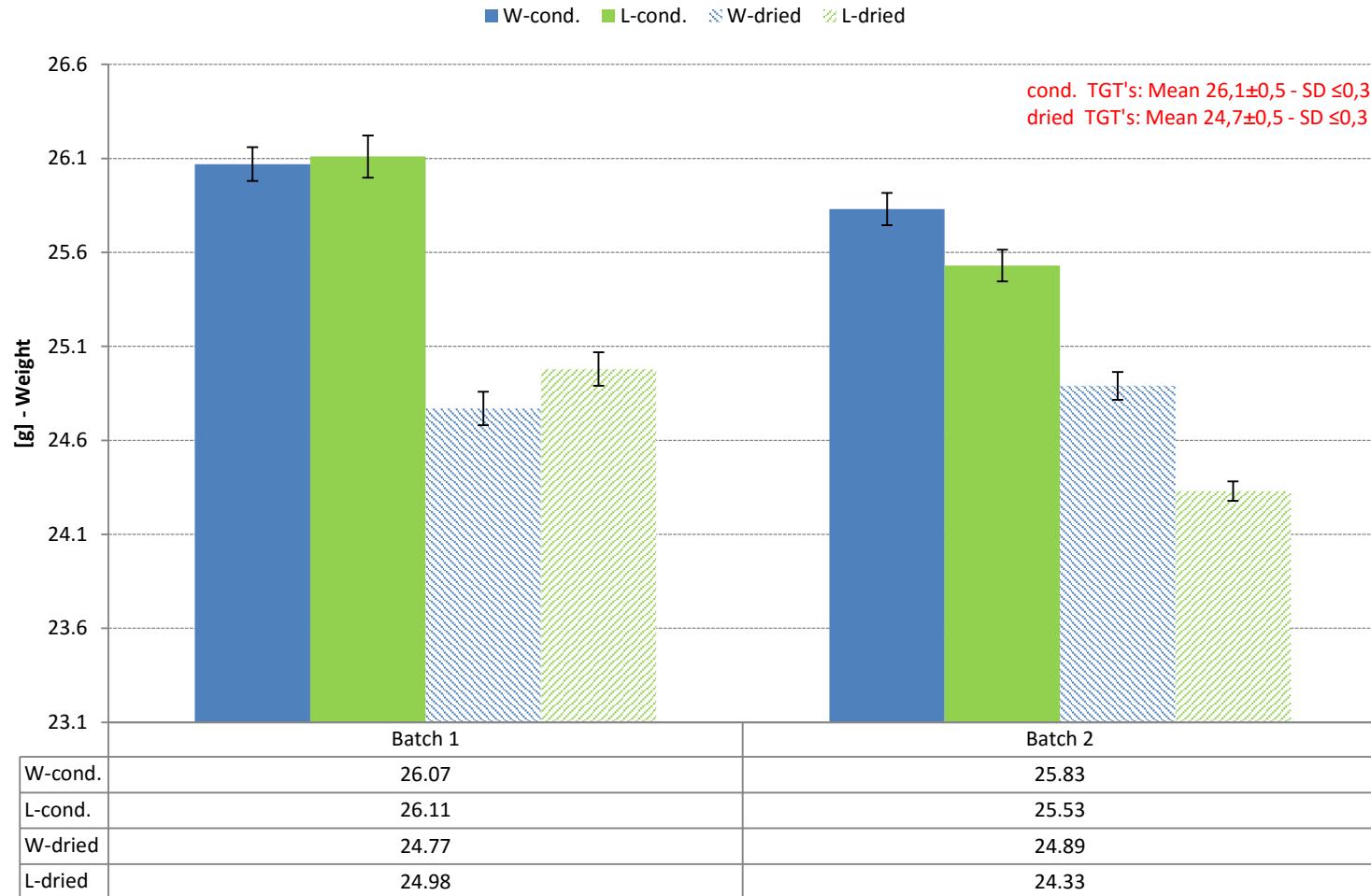
- CM7 Test piece	CM7
- NIST SRM 1082	SRM1082
- LIP.market KS	LIPKS
- LIP.market SS	LIPSS
- LIP.developed	LIPDev

Status ISO adhoc filter paper group

- First draft on filter paper specification for additional parameters
 - Roughness (rough side)
 - Grammage
 - Permeability
 - Thickness
- Ringtrial on physical measurements of filter papers and determination of self extinguishment performance of cigarettes

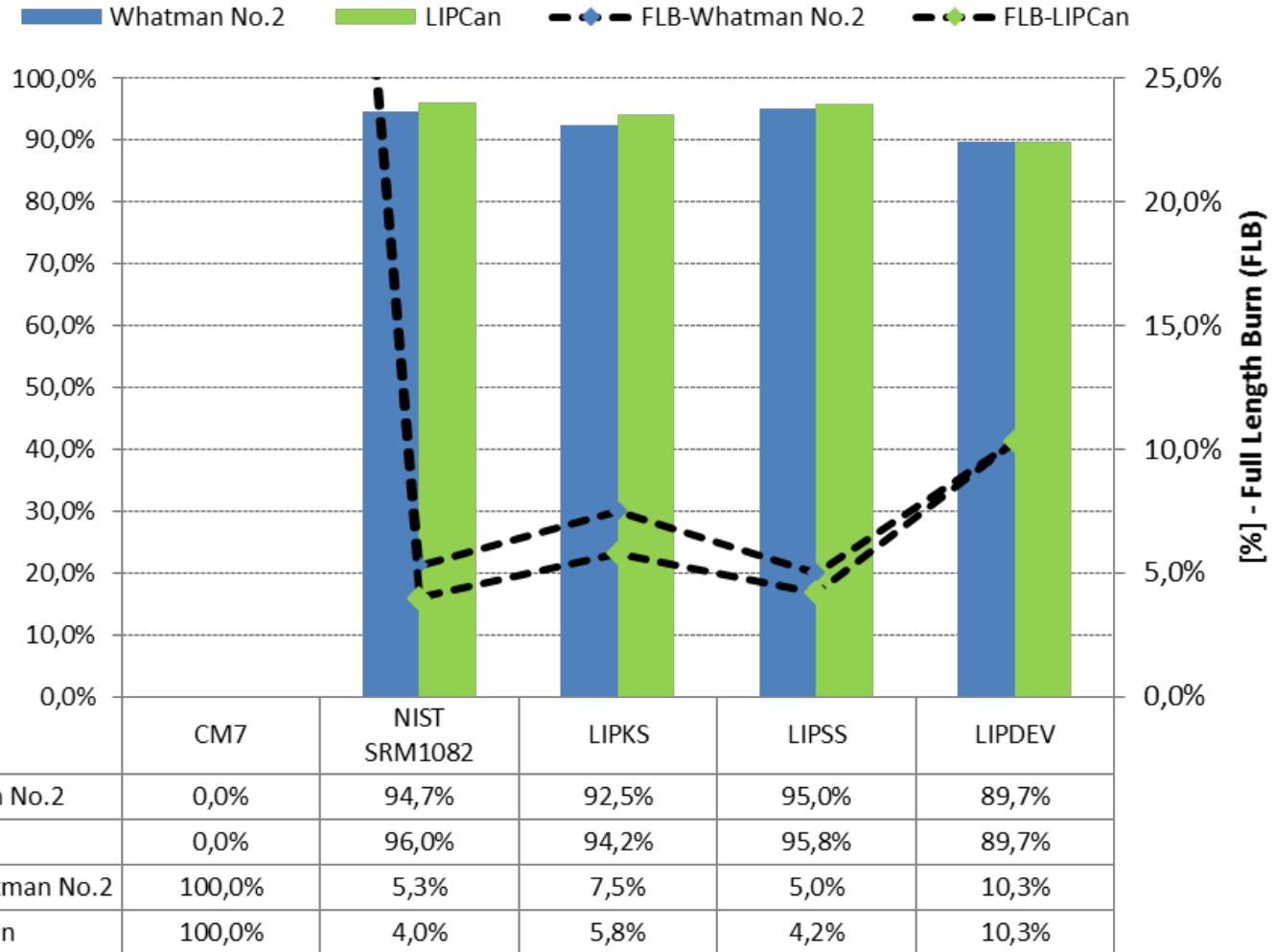
Physical measurements – filter paper

(ISO12863-§7.3.2-Paper mass requirement)



Results on IP

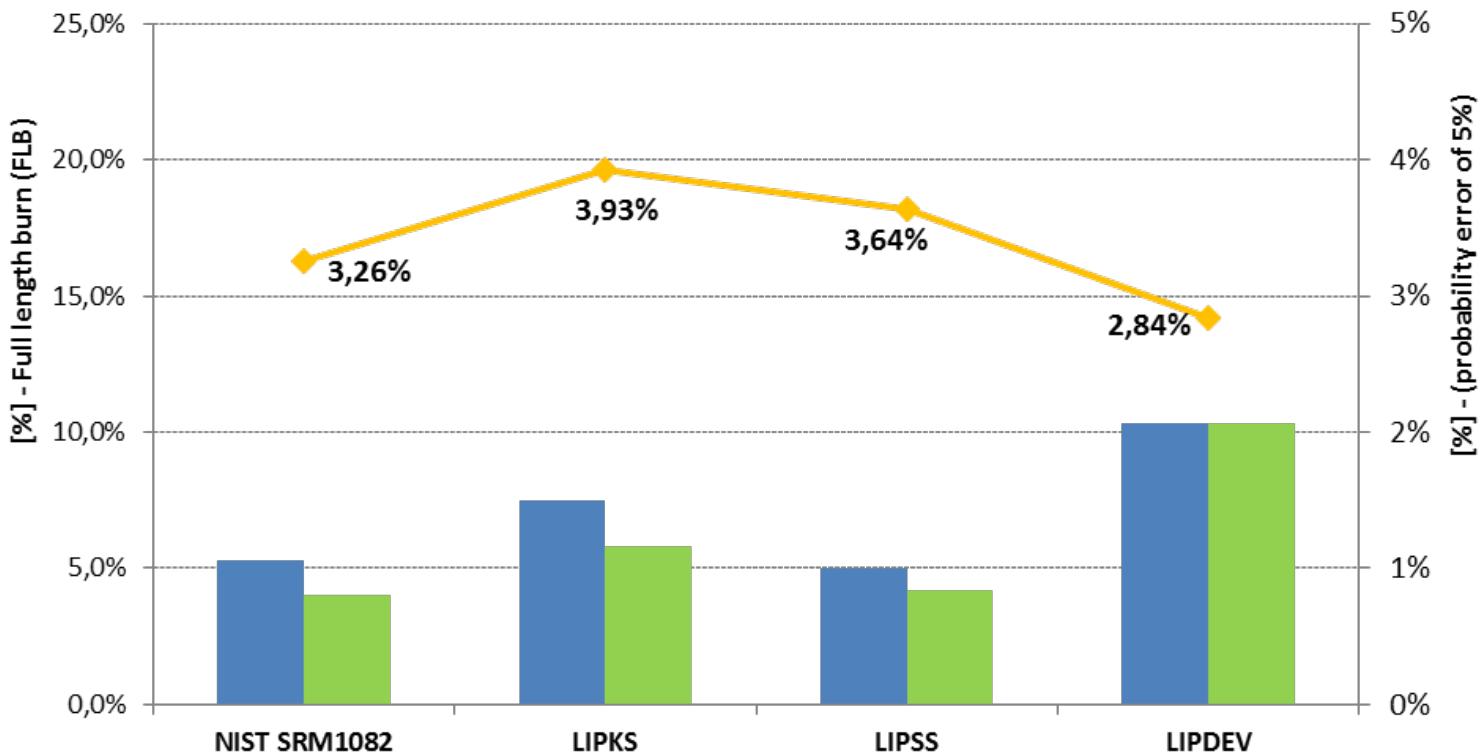
[%] - Self extinguishment (SE)



Statistical evaluation – CI 95%

Comparison of the FLB performance depending on the substrate

Whatman No.2 - FLB LIPCan - FLB probability error of 5%



Conclusions

- LIPCan filter papers are within the required tolerances for paper mass according to section 7.3.2 of ISO 12863 and section 9.3 of ASTM E.2187-09.
- There are no statistically significant differences in ignition propensity test results between LIPCan filter paper and Whatman No.2
- Within the typical variation of the test according to ISO 12863, LIPCan filter paper is equivalent to Whatman No.2 filter papers

Next steps

- Develop a cigarette brand which is more close to 25% FLB level
 - Already successfully developed
- Repeat the tests on LIPCan filter papers and Whatman filter papers
- Statistically evaluation process for modified study

Acknowledgement:

Patricia Müller

Sabine Staffler

Huub Vizée

Questions?

