



Indoor air first steps and way forward

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How to measure emissions – the standardisation work in CEN

2005: EC mandate to CEN (M/366)

2006- : ongoing standardisation work

Higher requirements on robustness of
assessment standards

2017- : Finalisation of assessment standards

The need to communicate – but with whom?

Existing schemes:

- basic information (consumer information)
 - performance based
- "black box" (manufacturer – toxicologist)
 - "fitness for use"

What information should be publicly available?

3

The need to communicate – but with whom? (cont.)

User needs to be considered:

Designers/architects/contractors

Do-it-yourself enthusiasts

Market surveillance

Building control

4

... and what?

- individual pollutants or "indicators"?
- performance data or risk based data?
- declaration and background data?

5

... and what?

- individual pollutants or "**indicators**"?
- performance data or **risk based data**?
- **declaration** and background data?

6



... and what? (part II)

Classes:

EU-LCI ratio

Formaldehyde emissions

CMR substances emissions

7



... and what? (part III)

EU-LCI ratio

2013: JRC/ECA report no 29 (framework EU-LCI)

Ongoing work on developing EU-LCIs
(work on technical files partly financed by EC and UBA)

8



... and what? (part IV)

Formaldehyde emissions

Currently: classes E1 ($\leq 0,12 \text{ mg/m}^3$)
and E2 ($> 0,12 \text{ mg/m}^3$)

Proposed: additional class $\leq 0,06 \text{ mg/m}^3$

France demands class $\leq 0,01 \text{ mg/m}^3$

9



... and what? (part V)

CMR substances emissions

Two classes (substances based on
Regulation (EC) 1272/2008)

"Fine-tuning" but general consensus

10

TVOC/SVOC (August 2016)

Classes	TVOC after 3days TVOC ₀₃	TVOC after 28days TVOC ₂₈	∑ SVOC	Not yet assessed substances C _{non-G}
Class A ₃	≤ 10000 µg/m ³	≤ 200 µg/m ³	≤ 100 µg/m ³	≤ 100 µg/m ³
Class A ₂		≤ 500 µg/m ³		
Class A ₁		≤ 1000 µg/m ³		
Class B	> 10000 µg/m ³	< 1500 µg/m ³	> 100 µg/m ³	>100 µg/m ³
Class C		< 2000 µg/m ³		
Class D		> 2000 µg/m ³		

11

TVOC: wide range of emission "thresholds" (EU-LCI ratios)

- 2 substances have EU-LCI value above 10000 µg/m³
- 23 substances have EU-LCI value above 2000 µg/m³
- 29 substances (out of 111) have EU-LCI value below 200 µg/m³ (lowest TVOC class)

12



Versions August 2016 – April 2017

		VOC ($\mu\text{g}/\text{m}^3$)	TVOC ($\mu\text{g}/\text{m}^3$)	EU-LCI (ratio)	Formaldehyde (mg/m^3)	CMR (mg/m^3)	Class (August 2016)	Class (April 2017)
Product A	Substance a	450	450	0.8	0.00	0.001	A₃ R1 F1 C1	R1 F1 C1
Product B	Substance b	9	1329	0.95	0.55	0.001	B R1 F2 C1	R1 F1 C1
	Substance c	120		0.7				
	Substance f	1200		0.4				
Product C	Substance b	9	149	0.95	0.12	0.001	A₃ R1 F4 C1	R1 F2 C1
	Substance c	120		0.7				
	Substance d	20		0.98				
Product D	Substance b	9	79	0.95	0.12	0.001	A₃ R2 F4 C1	R2 F2 C1 (substance e: 1.05)
	Substance d	20		0.98				
	Substance e	50		1.05				

13



For any ideas/comments/solutions:

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