



**Confederation of Finnish
Construction Industries**

Limiting Health Impacts of Construction Products Regarding VOC

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Who

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Confederation of Finnish Construction Industries CFCI

- CFCI is a member of Confederation of Finnish Industries EK
- Sustainable low carbon construction and circular economy
- European Construction Industry Federation FIEC: TEC-1 and TEC-3
- Member of EC Platform on Sustainable Finance (Taxonomy regulation)

Finnish Association of Construction Product Industries

- Construction Products Europe CPE: Sustainability WG and TG Dangerous substances
- standard writing body nominated by Finnish Standards Association SFS
 - Responsible for 33 CEN TCs and 14 ISO TCs in Finland
 - CEN/TC 350 Sustainability of construction works
 - CEN/TC 351 Construction products - Assessment of release of dangerous substances
 - > chairman of WG3 “Radiation from construction products”



The Classification of Indoor Environment 2018 & M1 classification for low-emission building materials

<https://cer.rts.fi/wp-content/uploads/testing-protocol-15112017-uusi-logo.pdf>

- The emission classification of building materials is part of **the Classification of Indoor Environment 2018**, which is used in the design and construction of healthier and more comfortable buildings and their mechanical systems.
- The first version of the M1 emission classification was developed by the Finnish Society of Indoor Air Quality and Climate (FiSIAQ) in 1995 as part of Classification of Indoor Climate, Construction and Finishing Materials.
 - a voluntary labeling system open to all manufacturers, importers and exporters of building products
 - Many developers, architects and designing engineers favour M1-certified products when selecting materials for their projects
 - **“de facto standard”**
- M1 classification sets limit values for the emission of VOC, formaldehyde, ammonia also the acceptability of the odour associated with the material is assessed.
- In testing M1 classification has closely followed development of European CEN standardization, i.e. CEN/TC 351
- EN 16516:2017 referred to as testing standard (references to ISO 16000 series of standards)
 - Formaldehyde sampling and analysis is performed using DNPH-method according to EN ISO 16000-3:2011 or applying sampling and analysis method based on acetylacetone – method as described e.g. in EN 717-1
- **M1-classification is product and company specific.** Building Information maintains and publishes [a freely accessible database](#). All products with valid M1-certificate can be found in the database using the search function.

M1 limit values

<https://cer.rts.fi/wp-content/uploads/testing-protocol-15112017-uusi-logo.pdf>

Parameter	M1	M2
The emission of total volatile organic compounds (TVOC) [mg/ m ² h]	< 0,2	< 0,4
Emission of a single volatile organic compound (VOC) [µg/m ³]	≤ EU-LCI	≤ EU-LCI
Formaldehyde emission [mg/ m ² h]	< 0,05	< 0,125
Ammonium emission [mg/ m ² h]	< 0,03	< 0,06
The emission of CMR-compounds belonging to category 1A or 1B in Annex VI to Regulation (EC) No 1272/2008 [mg/m ³] ¹	< 0,001	< 0,001
Odour ²	not odorous	not odorous

1) does not include formaldehyde , 2) odour acceptance ≥ 0,0

Position of construction product industry

- **Construction Products Europe** supports, in general, the development of European classes of performance for release/emission of dangerous substances when such classes are driven by the concerned construction product industry or by the market and supported by the industry.
- Where such European classes are introduced, Member States must implement these European classification systems to requirements related to the essential characteristics covered by the system as soon as they enter into force. This action shall make overlapping existing classification schemes obsolete.
- Construction Products Europe considers that, **in the absence of European classes, declared values** are the best approach to the declaration of the performance of release/emission of regulated dangerous substances but the implementation of this approach requires further discussions and collaboration with regulators.

Emissions to indoor air / remarks & questions

- Construction Products Europe requests to the EC to clarify their position to the declaration of emissions of regulated dangerous substances. Until a system is proposed and implemented (delegated act or any alternative to it), CPE recommends to the CEN Technical Committees to refrain from introducing clauses for the declaration of performance related to dangerous substances.
- Considering the stage of harmonisation of test methods in CEN/TC 351 and their publication within the near future, Construction Products Europe stresses the importance of the official publication of the EU-LCI values' list in the relevant delegated act.
- An important open question is inclusions of sum parameters (TVOC; R-value) in addition to the “health based “ parameters LCI; CMR and HCOH.
 - The commission seems to be against, some MS have introduced it



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Thank you for your attention

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