

M1-classification: Information letter 6.7.2017

M1-classification for upholstered office chairs

The Building Information Foundation RTS sr run a project where different office chairs were tested. Furniture with textile coverings and paddings/ upholstery contributes to the indoor air quality in refurbished buildings.

There is a possibility to classify upholstered office chairs with fabric or artificial leather surface and the criteria can be found from our web pages. The chairs will be tested as building materials, but the emissions will be mentioned as model room concentration and the criteria will be the same as for small products. The classification work group will decide tested product before testing.

M-classification criteria has been updated

The criteria for M-classes has been updated. In addition to old criteria the new criteria include EU LCI-values. Please find the new criteria from our web pages m1.rts.fi/en:

The classification of building materials:

The emission classification of building materials has three emission classes. Emission class M1 corresponds to the best quality and emission class M3 includes materials with the highest emission rates. Classified materials shall fulfill the following criteria at the age of 4 weeks'.

Examined qualities	M1 [mg/m²h]	M2 [mg/m²h]
The emission of total volatile organic compounds (TVOC). A minimum of 70% of the compounds shall be identified.	< 0,2	< 0,4
single VOC µg/m ³	≤ EU-LCI	≤ EU-LCI
The emission of formaldehyde(HCOH)	< 0,05	< 0,125
The emission of ammonia (NH ₃)	< 0,03	< 0,06
The emission of compounds (CMR) belonging to category 1A or 1B in Annex VI to Regulation (EC) No 1272/2008 ^{1*}	< 0,005	< 0,005
Odour (dissatisfaction with odour shall be below 15 %) ^{2*}	Is not odorous	Is not odorous

Upholstered office chairs

Examined qualities	M1 Small area (2m²) [µg/m³]
The emission of total volatile organic compounds (TVOC). A minimum of 70% of the compounds shall be identified.	≤ 20
single VOC	≤ EU-LCI or ≤ 10
The emission of formaldehyde(HCOH)	≤ 10
The emission of ammonia (NH ₃)	≤ 10
The emission of CMR compounds belonging to category 1A or 1B in Annex VI to Regulation (EC) No 1272/2008 ^{1*}	≤ 1
Odour (dissatisfaction with odour shall be below 15 %) ^{2*}	is not odorous

1* does not apply to formaldehyde

2* result shall be +0,0

Additional information

- the fabric/surface material shall not be handled with fungicide sprays
- LCI-values µg/m³, kts. http://www.eu-lci.org/EU-LCI_Website/EU-LCI_Values.html
- Date of chair part assembly shall be mentioned, the parts shall be as fresh as possible
- emission measurement at the day 3, odour assessment at the day 3 or 4

Indoor Air Classification 2008 will be updated

Both the Emission classification of Building Materials and the Cleanliness Classification of Air-handling Components are part of the Classification of Indoor Environment 2008.

The updated guidance Classification of Indoor Environment 2017 will be published on December 2017. The new criteria concerning M1-classifications will be added to the new guidance.

Additional Information

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