

# Danish Indoor Climate Labelling



## Testing and labelling criteria

### Dwellings

2<sup>nd</sup> edition, October 2018

| Reference to General labelling criteria | Property                           | Requirements   |
|---|------------------------------------|--|
| Clause 2                                | <i>Use(s)</i>                      | Dwellings. All materials, fixtures and other products in the dwelling supplied by the manufacturer are covered by the criteria.  |
| Clause 5                                | <i>Requirements for labelling</i>  | Documentation for meeting the Building Regulations regarding air tightness, air change rate and radon proofing is required.  |
| Clause 5.2                              | <i>Description of the products</i> | <p>General description of the dwelling. The description must include: floor plan, construction plans, type of façade, type of roofing, foundation, ventilation system, heating system.</p> <p>Description of variation possibilities: materials, layout of floor plan. Further a description of which parts of the construction work, the future owner can be responsible for (eg. paint job, installation of kitchen etc.).</p> <p>A list of components, materials and products exposed to the indoor air is required. The list must at least include product type/name, manufacturer, along with a description of where the specific product is used. If the product is comprised of several products only the main product should be listed.</p>  |
| Clause 5.3                              | <i>Guidelines</i>                  | <p>A maintenance plan for installations and interior surfaces must be available to make sure that the end-user knows the need for maintenance and that the maintenance does not impair the indoor air quality.</p> <p>The maintenance plan must contain information about the frequency of maintenance of certain components and if specific products must be used. It must also appear from the plan if maintenance must be performed by an extern/authorized service or if maintenance can be performed by layman.</p> <p>A maintenance plan must at least include information regarding:</p> <ul style="list-style-type: none"> <li>Heating system</li> <li>Ventilation (natural or mechanical)</li> <li>Interior walls</li> <li>Ceilings</li> <li>Floors</li> <li>Interior doors</li> <li>Windows and exterior doors</li> <li>Additional installations</li> </ul> <p>Information regarding indoor air quality properties: The end-user must be made aware that replacing materials may impact the indoor air quality.</p> <p>Information must be available regarding how to ensure and maintain a good indoor environment. As a minimum, this description must include information and guidance regarding ventilation and airing along with information about moisture generating activities such as showering, cooking and laundering.</p> <p>A simple, clear manual for the heating and ventilation system (if installed) must be available explaining how these systems are</p> |

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|            |   | operated and adjusted in order to obtain the best possible operation and indoor environment.   |
| Clause 6.5 | <i>Sampling</i>                         | <p>Sampling is carried out at two points of time. First sampling is carried out within day 3-7 and second sampling is carried out no later than day 28 after the dwelling is completed and ready to be handed over to the end-user.</p> <p>If floor, wall and ceiling materials differ essentially regarding expected emissions in the living room and bedrooms, sampling is carried out in each of these rooms.</p> <p>If floor, wall and ceiling materials do not differ essentially regarding expected emissions in the living rooms, sampling is carried out in one of these rooms. Prior to and during sampling, mixing of air between living rooms should be established by opening of internal doors and by means of mixing fans.</p> <p>At least 24 hours prior to sampling it must be ensured that ventilation rate is as prescribed by the manufacturer and that the room temperature in all rooms in the dwelling is within the normal range for occupancy, expectedly between 20-23 °C.</p> <p>The settings of the mechanical ventilation system and/or openings for outdoor air intake are registered. Temperature and relative humidity during sampling is registered.</p> |
| Clause 7   | <i>Emission testing</i>                 | The room in which the sampling is carried out constitutes the test chamber and is considered as the reference room.  |
| Clause 8.1 | <i>Evaluation of volatile emissions</i> | <p>Volatile emissions measured in the room air in dwellings are excluded from evaluation according to the LCI concept. Emissions are solely evaluated according to sensory evaluation (Clause 8.2), CMR substances, formaldehyde, and the total emission of volatile organic compounds (TVOC).</p> <p>Requirements for sensory evaluation, emission of CMR substances, and calculation of the TVOC value appear from the General Labelling Criteria.</p> <p>The concentration of formaldehyde in the room air measured after 28 days must not exceed 0.05 mg/m<sup>3</sup>.</p> <p>The TVOC concentration measured after 28 days (TVOC<sub>28</sub>) must not exceed 3.0 mg/m<sup>3</sup>.</p>   |
| Clause 8.2 | <i>Maximum allowed time-value</i>       | 200 days   |