

The flooring installation product classified with an EMICODE® has to comply with the classification criteria as issued by the Technical Council of the GEV:

- In general, an EMICODE® labelled product is solvent free. Solvents in this meaning are defined as Volatile Organic Compounds (VOC) with a boiling point < 200°C under normal conditions (20°C, 1013 hPa). As an exemption for technical needs, only surface coatings for wood flooring may contain solvents as film building agent.
- **A safety data sheet has to be set up. It is recommended to state the EMICODE® - classification in the safety data sheet under Point 15, e.g. „EMICODE® EC 1 – very low emission“.**
- Carcinogenic or mutagenic substances or substances which are harmful to foetuses (CMR class 1A and 1B substances) are not permitted to be used in the manufacture of a licensed product. A chamber test shall show that emissions of the sum of all volatile organic C1A and C1B compounds do not exceed 10 µg/m³ after 3 days and the emissions of any such individual VOC do not exceed 1 µg/m³ after 28 days.
- Products labelled with an EMICODE® must not be labelled toxic or very toxic and must not contain Methylethylketoxim (MEKO) or Methylisobutylketoxim (MIBKO) due to odours and occupational health.
- The EMICODE® classification label must be amended by the appendage **"R"** (regulated) for products which comply with the general requirements for EMICODE® but are labelled as dangerous or must carry hazard or precautionary statements (e.g. H- or P-statements) and therefore may induce special measures for ensuring occupational safety (e.g. reactive resins, cement based products), or for those products that release VOC (e.g. silan terminated reactive resins) by chemical reaction. SMP products must only carry an EMICODE® label if the OEL value for the intended released alcohol (e.g. methanol, ethanol) is observed.
- Testing has to be performed in accordance to the „GEV-testing method“. These tests shall be performed by a laboratory accredited for this type of tests according to ISO 17025. The documentation of test results is operated by the producer according to intra-company rules. Classification into EMICODE® classes has to be effected in correspondence with the respective product group and its requirements according to the subsequent tables of procedures, criteria and the corresponding TVOC and TSVOC concentration ranges.



Product group 1:

- Liquid products (primers, ready to use liquid fixations and adhesives, spray adhesives, liquid sealants)
- Powder based products (levelling compound based on cement or gypsum, tile mortars and joint fillers, cement based waterproofing slurries)
- Pasty products and those with high content of organic binder (adhesives for floor covering, parquet and ceramic tiles, fixations, water based or reactive sealants, water based or reactive levelling compounds)
- Ready to use products which do not require chemical curing or physical drying (underlays for flooring installation or sound absorbing, self-adhesive tapes and membranes, insulation/decoupling boards)
- Joint sealants, joint insulations, joint sealing tapes (water based or reactive sealants, pre-compressed sealing tapes, sealing membranes for windows or facades)

For product labelling the corresponding EMICODE® class has to be used:

$\mu\text{g}/\text{m}^3$	EC 1 ^{PLUS}	EC 1	EC 2
TVOC after 3 days	≤ 750	≤ 1000	≤ 3000
TVOC after 28 days	≤ 60	≤ 100	≤ 300
TSVOC after 28 days	≤ 40	≤ 50	≤ 100
R value based on German AgBB LCI (NIK) after 28 days	≤ 1	-	-
Sum of non-assessable VOC	≤ 40	-	-
formaldehyde after 3 days	≤ 50	≤ 50	≤ 50
acetaldehyde after 3 days	≤ 50	≤ 50	≤ 50
Sum of form- and acetaldehyde	≤ 0.05 ppm	≤ 0.05 ppm	≤ 0.05 ppm
Sum of C1A/C1B VOCs after 3 days	≤ 10	≤ 10	≤ 10
Any C1A/C1B VOC after 28 days	≤ 1	≤ 1	≤ 1

Product group 2:

- Wood flooring coatings

$\mu\text{g}/\text{m}^3$	EC 1 ^{PLUS}	EC 1	EC 2
Sum of TVOC + TSVOC after 28 days	≤ 100 thereof max. 40 SVOC	≤ 150 thereof max. 50 SVOC	≤ 400 thereof max. 100 SVOC
Formaldehyde after 3 days	≤ 50	≤ 50	≤ 50
Acetaldehyde after 3 days	≤ 50	≤ 50	≤ 50
Sum of volatile C1A/C1B after 3 days	≤ 10	≤ 10	≤ 10
Any volatile C1A/C1B after 28 days	≤ 1	≤ 1	≤ 1

TVOC = Total volatile organic compounds

TVVOC = Total very volatile organic compound

TSVOC = Total semi-volatile organic compounds

C1-, C2-, C3-VOC = Substances of CMR categories 1, 2 and 3

- Products of the same mixture (preparation) but different trademark (article name) require an EMICODE licence for each article but only one emission test. In this case the licence is granted based on the test of the previously tested and EMICODE licensed product.
- Changes to the mixture or alterations that have no relevance in terms of emissions do not require another test.

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