

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 products for the surface treatment of parquet, mineral floors and resilient floor coverings may contain solvents as film building agent.
- A safety data sheet is prepared for all licensed products, provided that there is an obligation to do so under local law. It is recommended to state the EMICODE®-classification in the technical data sheet, e.g. “EMICODE EC 1 – very low emission”.
- Substances included under the REACH Regulation (EC 1907/2006) in accordance with art. 57 in the list established under REACH art. 59(1) (the so-called “Candidate List”) must not be actively used in EMICODE products¹.
- Substances that have been identified under REACH as carcinogenic, mutagenic or toxic to reproduction (“CMR substances” of categories 1A and 1B) shall not be actively used.¹ Emissions of all volatile organic carcinogenic substances of categories 1A and 1B must remain below a total limit value of 10 µg/m³ after 3 days and an individual limit value of 1 µg/m³ after 28 days.
- Products which are classified in categories 1, 2 or 3 according to European Hazardous Substances Regulation with regard to acute toxic properties (CLP: Part 3: 3.1 acute toxicity) are excluded from the EMICODE®.
- Methyl Ethyl Ketoxim (MEKO) and Methyl Isobutyl Ketoxim (MIBKO) as well as Acetone oxime must not be added or released during curing for reasons of occupational safety and odour.
- Required tests have to be carried out according to the defined “GEV testing method” and have to be performed by a laboratory that masters the defined “GEV test method” and whose accreditation according to ISO 17025 covers the tests according to the GEV test method or EN 16516. The documentation of test results is operated by the producer according to intra-company rules. A list of recommended laboratories is published on <https://www.emicode.com/en/laboratories/>.
- Products of the same mixture (preparation) but different trademark (article name) require an EMICODE® license for each article but only one emission test. In this case the license 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.
- Classification into EMICODE® classes is carried out according to the product group after compliance with all requirements of the following tables. The appropriate EMICODE® class shall be used for product labelling.

¹ For details and exceptions, see “GEV Classification Criteria”.

Product group 1: Flooring installation products, adhesives, construction products

- **Liquid products**
Undercoats, primers, sealing primers or barrier primers, ready-to-use low-viscous tackifiers or adhesives, anti-slip coatings for self-laying floor coverings, roll-on tackifiers, spray adhesives, threadlocking adhesives, wood glues, dispersion-based additives for mineral tile mortars and levelling compounds, dispersion-based bonding courses (e. g. for bonded screeds), liquid sealants, liquid membranes, binders for synthetic resin screeds, casting resins, water-based conductive coatings, water-based synthetic resin roll-on coatings / top coats for floor coatings, reactive filler-free primers, binders for granule flooring (e.g. quartz pebble flooring)
- **Powdery products**
Cement- and calcium sulfate-based levelling compounds, cement- or mineral-based tile mortars (Thin-bed, medium-bed and thick-bed mortars), cementitious grouts and cement-based masonry mortars, cement- and calcium sulfate-based screed mortars and screed binders, powdery and liquid screed admixtures or concrete admixtures, powdery adhesives (other than tile adhesives), cementitious waterproofing slurries / bonded waterproofing, powdery bonding courses (e. g. for bonded screeds), filling primers and filler primers, quick cements, repair fillers and mortars
- **Pasty products**
Adhesives for flooring and parquet as well as ready-to-use adhesives for tile, assembly adhesives and other pasty adhesives, pasty tackifiers for floor coverings, dispersion-or reactive resin-based levelling compounds, waterproofing under tiles (dispersion- or reactive resin-based products), grouts (based on dispersions or reactive resins), synthetic resin roll-on coatings / top coats for floor coatings (100 % solids content), reactive filled primers, self-levelling synthetic resin coatings for floors, liquid plastics for indoor applications
- **Ready-to-use products that do not require chemical curing or physical drying**
Underlays (e. g. impact sound insulation underlays, insulation underlays), underlays with adhesive coating, adhesive tapes, floor installation boards, decoupling panels / insulation boards, full-surface sealing tapes and sealing collars for small surfaces (e. g. for windows and facades, in wet areas), sealing membranes for large surfaces (e.g. for walls and floors in wet areas), vapor retarders under the roof, self-adhesive window sealing strips and door seals
- **Joint sealants, joint insulations, joint sealing tapes**
Joint sealants based on dispersions or reactive resins, assembly and insulation foams, pre-compressed joint sealing tapes according to DIN 18542 and joint sealing tapes made of foam, chemical anchors
- **Products for wall and ceiling application**
Mineral- and gypsum-based base plasters for indoor applications, mineral- and gypsum-based finishing and top plasters for indoor applications, wall filler, wall panels

$\mu\text{g}/\text{m}^3$	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	≤ 1	-
Sum of non-assessable VOC	≤ 40	-	-
formaldehyde after 3 days	≤ 50	≤ 50	≤ 50
formaldehyde after 28 days	≤ 10	≤ 10	≤ 10
acetaldehyde after 3 days	≤ 50	≤ 50	≤ 50
Sum of formaldehyde and acetaldehyde after 3 days	≤ 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: Products for floor surface treatments for parquet, mineral floors and resilient floorings

- Water based parquet lacquers/coatings, water-based parquet primers and joint fillers for parquet, parquet oils, water-based UV lacquers for parquet, UV-curing lacquers (100 % solid) for parquet
- Water based lacquers and finishes and oils for mineral floorings
- Water based lacquers and primers for resilient floorings, water-based UV lacquers for resilient floorings, UV-curing lacquers (100 % solid) for resilient floorings

$\mu\text{g}/\text{m}^3$	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
R value based on German AgBB LCI (NIK) after 28 days	≤ 1	≤ 1	-
Sum of non-assessable VOC	≤ 40	-	-
Formaldehyde after 3 days	≤ 50	≤ 50	≤ 50
Formaldehyde after 28 days	≤ 10	≤ 10	≤ 10
Acetaldehyde after 3 days	≤ 50	≤ 50	≤ 50
Sum of formaldehyde and acetaldehyde after 3 days	≤ 0.05 ppm	≤ 0.05 ppm	≤ 0.05 ppm
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
 TSVOC = Total semi-volatile organic compounds
 C1A-, C1B-VOC = volatile substances of CMR categories 1A and 1B

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