



**People tend to spend more and more time indoors. Consequently, the quality of the indoor air and emissions from installation materials on walls and floors is becoming increasingly important. Particularly emissions from freshly applied paints, adhesives, sealing systems and other construction materials can cause the concentration of harmful volatile organic compounds (VOCs) in the air to rise significantly for up to several days.**

Therefore, renowned German manufacturers of flooring adhesives have decided to develop floor installation products with very low emission levels and to promote their use on the market. In February 1997 the "Gemeinschaft Emissionskontrollierte Verlegewerkstoffe e.V." (GEV) (Association for the Control of Emissions in Products for Flooring Installation, Adhesives and Building Materials) was founded in order to establish a binding basis. To provide consumers, craftsmen, planners, architects and traders with a guideline on low-emission products and technologies available on the market, they created a protected, independent classification system for installation materials called EMICODE®.

GEV acts as the relevant licensing and controlling body. Responding to a strong demand by the market, GEV has since included further construction products and become established on a global scale, primarily in Europe. Today, GEV is an internationally-recognized institution which, thanks to its market monitoring activities, is making a key contribution to consumer and environmental protection and occupational safety.

[www.emicode.com](http://www.emicode.com)

## Scope of activities

### Aims and objectives

The principle role of GEV is to promote consumer and environmental protection and occupational safety regarding building chemicals and adhesives. GEV's main aim is to provide the market with a method of assessing VOC emissions from the numerous products and differentiating between them. To achieve this, the classification system EMICODE® was created.

GEV has an open information policy, supporting cooperation among all manufacturers and industrial partners. Steps can only be taken to improve our quality of living if everyone involved makes a concerted effort. Consumers, craftsmen and manufacturers need to take an active part, working together to develop and use high-quality products with low emissions.

### Licensing

If a manufacturer applies for a license for one of his products, its emission behavior is assessed by an independent analysis laboratory following a defined, standardized testing procedure. Based on the scientific data obtained, the manufacturer is then granted a license stating the corresponding EMICODE® category. This license gives him the right to mark his product with the protected EMICODE® label and advertise it accordingly. Manufacturers whose goods bear the EMICODE® label are obliged to manufacture these products in a strictly controlled manner and with the required quality so that they always meet specifications.

### Brief description

- Growing demands concerning the quality of indoor air and for products with low emissions
- Need for a clear guideline for commerce, craftsmen, planners and consumers
- EMICODE®: independent assessment of emissions from products
- GEV: licensing and controlling body
- Status quo: GEV is an internationally-recognized patron of consumer and environmental protection and occupational safety

## Quality assurance

Trust is good but control is better – true to this motto, in its role as a controlling body GEV monitors its licensed product information right from the start. Unknown to the manufacturers concerned, EMI CODE® products that are freely available on the market are selected by drawing lots and bought by internationally-recognized inspection institutes to assess their emission behavior extensively in long-term tests. Penalties are severe if any abnormalities are detected. Furthermore, manufacturers whose products do not comply with the commended EMI CODE® declaration are obliged to bear the full testing costs.

They are also obliged to have new batches of their products reassessed in the same manner once all discrepancies in their production process have been rectified. If the abnormalities reoccur, their license may be taken away or, in the worst case, their EMI CODE® certification rights revoked for all their products. Test results from the last few years have shown that the necessary discipline to manufacture optimum quality is only sustained through control. Currently, EMI CODE® is the only VOC label on the market that is subject to stringent quality checks at regular intervals. It therefore offers the best possible consumer protection as far as indoor air hygiene and health in the home are concerned.

## A success story

The influence of GEV on the quality of indoor air hygiene since it came into being becomes clear on making a comparison:

Until 1997, the overall quantity of emissions from common dispersion adhesives was approx. 10,000 µg/m³. Now, in compliance with EMI CODE® EC 1 (very low emissions), TVOC emissions from certified adhesives may not exceed ≤ 100 µg/m³ after 28 days. For EC 1<sup>PLUS</sup> products, a maximum TVOC value of 60 µg/m³ is permissible after 28 days, which comes very close to the limits of technical feasibility.

Since the introduction of EMI CODE® criteria, commerce and industry have noted a marked decrease in the number of complaints. Thanks to this effect, EMI CODE® has become an international guideline and a benchmark of quality for low-emission products. In professional circles, the certification EMI CODE® EC 1/EC 1<sup>PLUS</sup> is considered as “the” quality label for construction products low in emissions.

Well over 11,000 materials have been tested up till now. The number of companies across the globe who are interested in becoming members continues to grow. Since manufacturers seeking to expand their global business in growth markets often stumble across other environmental labels that are already in existence, GEV also allows the use of certain labels in parallel. However, this is only permitted if the labels are recognized and if they do not confuse the consumer.

## Communication

Right from the word go, GEV keeps commerce and industry informed by publishing reports about its activities and services in all relevant technical journals. Members and interested parties can find out more about GEV via its Internet homepage [www.emicode.com](http://www.emicode.com).

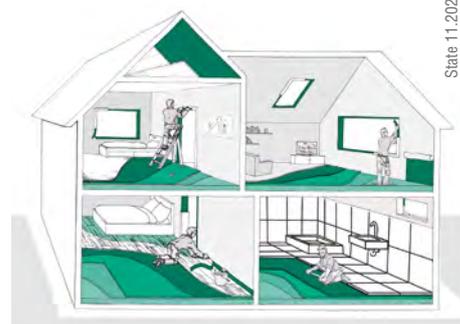
Additionally, in the brochure “GEV and EMI CODE® – Questions and Answers”, GEV gives brief, precise answers to the most commonly-asked key questions on emissions. The brochure “Breathe easily with EMI CODE® - The Quality Seal for low-emission building products” provides a good overview of the eco-label EMI CODE®, the certifiable range of products and the test procedure used. It is primarily aimed at building owners, architects, building authorities, experts from tendering bodies and other interested parties. Both brochures are available in German, English, French and Italian.

General information on EMI CODE® for end-users and craftsmen can also be found in the brochure “EMI CODE® – stands for low in emissions”. Manufacturers and consumers wishing to learn more about building materials with controlled emission levels can find out about members’ products via the GEV membership list available on the Internet.



### Brief description

- The overall quantity of volatile organic compounds has fallen from around 10,000 µg/m³ to ≤ 100 µg/m³ (EC 1) or ≤ 60 µg/m³ (EC 1<sup>PLUS</sup>)
- Significant reduction in number of complaints
- Broad international acceptance
- EMI CODE® EC 1 is “the” quality label when it comes to installation products low in emissions
- More than 11,000 materials licensed
- Steady increase in membership numbers (over 180 companies, approx. half of which are European and half from overseas)
- Specific national labeling requirements can be considered
- Close contact with the technical press in commerce and industry
- Cooperation with the Institut Bauen und Umwelt IBU (German association for construction and the environment) and the Deutsche Gesellschaft für Nachhaltiges Bauen DGNB (German Sustainable Building Council)



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