

**Gemeinschaft Emissionskontrollierte  
Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.**

Association for the Control of Emissions from Products  
for Flooring Installation, Adhesives and Building Materials



**Awarding of licence for the use of EMICODE**

Licence Number: 2191/24.02.97

For the product ARDEX X 77 S

Of company ARDEX GmbH

Due to application date August 5, 2009

With reference to the classification in accordance with the directives as stipulated in § 10 of the GEV trademark constitution

on behalf of the GEV for the above mentioned product as per § 5, section 4 of the GEV trademark constitution is awarded the licence for the use of the GEV trademark



This product meets with the guidelines for the criteria of use listed reverse.  
The company is ordinary member of the GEV.

**OM 001 August 2, 2019**  
valid until August 2, 2024

A handwritten signature in blue ink, appearing to read 'D. J. ...'.

The Secretary General  
Association for the Control of Emissions from Products  
for Flooring Installation, Adhesives and Building Materials (GEV)  
Völklinger Straße 4 · D-40219 Düsseldorf

## Requirement guidelines for the awarding of the EMICODE licence

The product mentioned on the front side of the licence has to fulfil among others the following criteria in accordance with the Constitution and the guidelines of the Technical Advisory Board of the GEV:

- The product meets all the legal requirements, especially the chemical laws and their specifications.
- The product is solvent free as specified in clause 2.4 of the “GEV Classification Criteria”, except if it is a surface treatment product. If the product is assigned to a GISCODE product group then this can be labelled.
- A safety data sheet (SDS) according to local law in its respectively valid version is issued for the product.
- Carcinogenic, mutagenic, reprotoxic substances of the categories 1A or 1B are not added during the manufacture of the product.
- The testing of the product is performed in accordance with the GEV Testing Method. VOC determination is performed in a test chamber followed by the Tenax / thermal desorption procedures with subsequent GC/MS analysis.
- The assignment of an EMICODE class is performed according to the following criteria and TVOC/TSVOC concentration levels. The corresponding EMICODE class shall be used to label the product:

### 1) Installation products, adhesives and construction products

Parameter	EC 1 <sup>PLUS</sup>	EC 1	EC 2
	max. allowed concentration [ $\mu\text{g}/\text{m}^3$ ]		
TVOC after 3 days	$\leq 750$	$\leq 1000$	$\leq 3000$
TVOC after 28 days	$\leq 60$	$\leq 100$	$\leq 300$
TSVOC after 28 days	$\leq 40$	$\leq 50$	$\leq 100$
R value based on German AgBB LCI (NIK) after 28 days	1	-	-
Sum of non-assessable VOC	$\leq 40$	-	-
Formaldehyde after 3 days	$\leq 50$	$\leq 50$	$\leq 50$
Acetaldehyde after 3 days	$\leq 50$	$\leq 50$	$\leq 50$
Sum of form- and acetaldehyde	$\leq 0.05$ ppm	$\leq 0.05$ ppm	$\leq 0.05$ ppm
Sum of volatile C1A/C1B after 3 days	$\leq 10$	$\leq 10$	$\leq 10$
Any volatile C1A/C1B after 28 days	$\leq 1$	$\leq 1$	$\leq 1$

### 2) Products for floor surface treatments for parquet, mineral floors and resilient floorings

Parameter	EC 1 <sup>PLUS</sup>	EC 1	EC 2
	max. allowed concentration [ $\mu\text{g}/\text{m}^3$ ]		
Sum TVOC + TSVOC after 28 days	$\leq 100$ thereof max. 40 SVOC	$\leq 150$ thereof max. 50 SVOC	$\leq 450$ thereof max. 100 SVOC
Formaldehyde after 3 days	$\leq 50$	$\leq 50$	$\leq 50$
Acetaldehyde after 3 days	$\leq 50$	$\leq 50$	$\leq 50$
Any volatile C1A/C1B after 3 days	$\leq 10$	$\leq 10$	$\leq 10$
Any volatile C1A/C1B after 28 days	$\leq 1$	$\leq 1$	$\leq 1$