



Environmental Product Declaration

according to ISO 14025



Loose-laid carpet tiles

- tufted surface pile 100% PP
- fleece-covered bitumen backing
- flame-proofed on the basis of aluminium hydroxide



Gemeinschaft umweltfreundlicher Teppichboden e.V.

Declaration number
EPD-GUT-2010811-E

Institut Bauen und Umwelt e.V.
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**Short version
Environmental
Product Declaration**

<p>Institut Bauen und Umwelt e.V. www.bau-umwelt.com</p>	 <p style="text-align: right;">Program operator</p>	
<p>Gemeinschaft umweltfreundlicher Teppichboden (GUT) e.V. Schönebergstr. 2; 52068 Aachen; mail@gut-ev.de www.gut-ev.org</p>	 <p style="text-align: right;">Owner of the declaration</p>	
<p>EPD-GUT-2010811-E</p>	<p style="text-align: right;">Declaration number</p>	
<p>Loose-laid carpet tiles having a tufted surface pile made of 100 % polypropylene and a fleece-covered bitumen backing, flame-proofed on the basis of aluminium hydroxide</p> <p>This declaration is an Environmental Product Declaration according to /ISO 14025/ and describes the environmental performance of the floor coverings indicated herein. It is designed to foster the development of ecological and healthy building. In this validated declaration, all relevant environmental data are disclosed. The declaration is based on the PCR document 'Floor coverings', year 2008-01.</p>	<p style="text-align: right;">Declared building product</p>	
<p>This validated declaration authorises the use of the label of Institut Bauen und Umwelt. It is valid for a period of three years from the date of issue exclusively for the product group indicated and only in conjunction with a valid PRODIS licence. The contents and validity of the licence may be checked online via www.pro-dis.info. The owner of the declaration shall be liable for the underlying information and verifications.</p>	<p style="text-align: right;">Validity</p>	
<p>The declaration is complete and furnishes details of:</p> <ul style="list-style-type: none"> - the product definition and relevant building-physics-related information - the raw materials and origin of the raw materials - the descriptions of the product manufacture - the information on product processing - the information on the use stage, extraordinary influences and end-of-life stage - the results of the life cycle assessment 	<p style="text-align: right;">Contents of the declaration</p>	
<p>30. April 2010</p>	<p style="text-align: right;">Date of issue</p>	
<div style="text-align: center;">  </div> <hr/> <p>Prof. Dr.-Ing. Horst J. Bossenmayer (President of Institut Bauen und Umwelt)</p>	<p style="text-align: right;">Signatures</p>	
<p>This declaration and the rules on which it is based have been examined in accordance with ISO 14025 /1/ by the independent Committee of Experts (CoE).</p>		<p style="text-align: right;">Examination of the declaration</p>
<div style="text-align: center;">  </div>	<div style="text-align: center;">  </div>	<p style="text-align: right;">Signatures</p>
<p>Prof. Dr.-Ing. Hans-Wolf Reinhardt (Chairman of the CoE)</p>	<p>Dr. Eva Schmincke (CoE-appointed Examiner)</p>	



**Short version
Umwelt-
Produktdeklaration
Environmental
Product Declaration**

<p>The declaration covers a group of textile floor coverings having the following features: Kind of manufacture: Tufted Useful-layer material: 100 % polypropylene (PP) - fibres, Back coating: Bitumen finish fleece-covered and flame-proofed on the basis of aluminium hydroxide</p> <p>Subject to the weight of the surface pile, the textile floor covering is classified in accordance with luxury classes LC1 to LC5 (Table 1) defined in EN 1307.</p> <p>Table 1: Luxury classes</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #003366; color: white;"> <th>Luxury class</th> <th>LC 1</th> <th>LC 2</th> <th>LC 3</th> <th>LC 4</th> <th>LC 5</th> </tr> </thead> <tbody> <tr> <td>Weight of surface pile [g/m²]</td> <td>< 400</td> <td>≥ 400</td> <td>≥ 600</td> <td>≥ 800</td> <td>≥ 1000</td> </tr> </tbody> </table>	Luxury class	LC 1	LC 2	LC 3	LC 4	LC 5	Weight of surface pile [g/m²]	< 400	≥ 400	≥ 600	≥ 800	≥ 1000	Product description
Luxury class	LC 1	LC 2	LC 3	LC 4	LC 5								
Weight of surface pile [g/m²]	< 400	≥ 400	≥ 600	≥ 800	≥ 1000								
<p>As indicated on the PRODIS label, the textile floor covering may be used either in the residential or in the commercial area. Suitability for additional uses is also indicated on the PRODIS label.</p>	Range of application												
<p>The life cycle assessment was carried out according to /ISO 14040/ seq. following the requirements of the IBU guideline for type III declarations. The data reference consisted of specific data provided by GUT member companies and of data from the "GaBi 4" database. The life cycle assessment covers</p> <ul style="list-style-type: none"> - Part 1: Production stage including the supply chains (from cradle to factory gate) - Part 2: Delivery/installation, use - Part 3: End-of-life stage 	Scope of the life cycle assessment												

The initial value for the relevant columns of the table of results is the luxury class of the textile floor covering (Table 1), which is indicated on the PRODIS label.

Result of the life cycle assessment

Table 2: Results of the LCA for		Part 1 – Production stage					Part 2	Part 3 – End-of-life stage				
Categories evaluated	Unit per m ²	LC1	LC2	LC3	LC4	LC5		LC1	LC2	LC3	LC4	LC5
Primary energy not renewable	[MJ]	131.2	156.5	181.9	207.2	232.6	For the values of the delivery/installation and use, see the long version; likewise for the underlying conditions	-51.4	-54.7	-57.8	-61.0	-64.1
Primary energy renewable	[MJ]	2.1	2.7	3.3	3.9	4.6		-0.7	-0.8	-0.8	-0.9	-0.9
Greenhouse potential (GWP 100)	[kg CO ₂ -eqv.]	4.5	5.4	6.3	7.2	8.2		4.3	4.6	4.9	5.1	5.4
Ozone degradation potential (ODP)	[kg R11-eqv.]	7.8·10 ⁻⁷	8.7·10 ⁻⁷	9.6·10 ⁻⁷	1.0·10 ⁻⁶	1.1·10 ⁻⁶		-1.4·10 ⁻⁷	-1.5·10 ⁻⁷	-1.6·10 ⁻⁷	-1.7·10 ⁻⁷	-1.8·10 ⁻⁷
Acidification potential (AP)	[kg SO ₂ -eqv.]	1.9·10 ⁻²	2.2·10 ⁻²	2.5·10 ⁻²	2.8·10 ⁻²	3.2·10 ⁻²		4.8·10 ⁻³	5.1·10 ⁻³	5.4·10 ⁻³	5.7·10 ⁻³	6.0·10 ⁻³
Nutrication (NP)	[kg PO ₄ -eqv.]	3.7·10 ⁻³	4.0·10 ⁻³	4.3·10 ⁻³	4.7·10 ⁻³	5.0·10 ⁻³		1.0·10 ⁻³	1.1·10 ⁻³	1.1·10 ⁻³	1.2·10 ⁻³	1.3·10 ⁻³
Photochemical oxidant formation (POCP)	[kg ethene-eqv.]	2.6·10 ⁻³	3.0·10 ⁻³	3.3·10 ⁻³	3.7·10 ⁻³	4.1·10 ⁻³		1.0·10 ⁻⁴	1.1·10 ⁻⁴	1.2·10 ⁻⁴	1.2·10 ⁻⁴	1.3·10 ⁻⁴

The results are based on the life cycle assessment for textile floor coverings conducted by **Gemeinschaft umweltfreundlicher Teppichboden (GUT) e.V.**, Aachen,
 in cooperation with: **Textile and Flooring Institut GmbH**, Aachen,
 critically reviewed by: **Prof. Dr. Walter Klöpffer**, Int. Journal of Life Cycle Assessment, LCA CONSULT & REVIEW, Frankfurt a.M.,
Dipl. Natw. ETH Roland Hischier, Head of unit LCA, EMPA, St Gallen

<p>In addition, the following tests are represented in the environmental declaration:</p> <p>VOC emissions GUT product testing criteria based AgBB scheme for the evaluation of emissions from building products,</p> <p>Tests for contaminants GUT product testing criteria</p>	Verifications and tests
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Institut Bauen
und Umwelt e.V.

Publisher:

Institut Bauen und Umwelt e.V.
Rheinufer 108
53639 Königswinter
Tel.: 02223 296679-0
Fax: 02223 296679-1
E-Mail: info@bau-umwelt.com
Internet: www.bau-umwelt.com

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Gemeinschaft umweltfreundlicher Teppichboden (GUT) e.V.

Picture credits:

Gemeinschaft umweltfreundlicher Teppichboden (GUT) e.V.
Schönebergstr. 2;
52068 Aachen;
Tel: 0241 968 431
Fax: 0241 968 434 00
E-Mail: mail@gut-ev.de
Internet: www.gut-ev.org

In a case of doubt is the original EPD „EPD-GUT-2010811-D“ applicable.