



Environmental Product Declaration

according to ISO 14025



Needed floor covering

- multilayer product
- Surface layer: Polyamide 6,
admixture of polypropylene
- Backing: Recycled fibres
- Binder: Latex



Gemeinschaft umweltfreundlicher Teppichboden e.V.

Declaration number
EPD-GUT-2010711-E

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

<p>Institut Bauen und Umwelt e.V. www.bau-umwelt.com</p>		<p style="text-align: center;">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: center;">Declaration holder</p>
<p>EPD-GUT-2010711-E</p>		<p style="text-align: center;">Declaration number</p>
<p>Needed floor covering according to EN 1470, multilayer product type 2 and 3, surface layer of polyamide 6 (PA 6) with an admixture of polypropylene (PP), backing of recycled fibres, latex-binder 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: center;">Declared building product</p>
<p>This validated declaration authorises the use of the official stamp of the Institut Bauen und Umwelt (IBU). 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: center;">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: center;">Contents of the declaration</p>
<p>30 April 2010</p>		<p style="text-align: center;">Date of issue</p>
		<p style="text-align: center;">Signatures</p>
<p>Prof. Dr.-Ing. Horst J. Bossenmayer (President of Institut Bauen und Umwelt)</p>		
<p>This declaration and the rules on which it is based have been examined in accordance with ISO 14025 by the independent Committee of Experts (CoE).</p>		<p style="text-align: center;">Examination of the declaration</p>
		<p style="text-align: center;">Signatures</p>
<p>Prof. Dr.-Ing. Hans-Wolf Reinhardt (Chairman of the CoE)</p>	<p>Dr. Eva Schmincke (CoE-appointed Examiner)</p>	



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<p>The declaration covers a group of textile floor coverings having the following features:</p> <p>Kind of manufacture: Needled, multilayer product as roll goods</p> <p>Surface layer: Polamide 6 (PA 6) with up to 30 % polypropylen (PP).</p> <p>Backing: Recycled fibres, carrier fabric of polypropylene (PP) or polyester (PES),</p> <p>Binder: Latex based on styrene/butadiene- or styrene/acrylate copolymers, flame-proofed on the basis of aluminium hydroxide.</p> <p>Subject to the weight of the surface layer the textile needled floor covering is classified in use classes. The FCSS symbol (Floor Covering Standard Symbols) for the respective use class is indicated on the PRODIS label.</p>	Product description
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<p>As indicated on the PRODIS label, the textile needled 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
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<p>The Life Cycle Assessment (LCA) 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.</p> <p>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
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<p>This declaration is valid for products with a weight of the surface layer up to 1000 g/m². The initial value for the relevant columns of the table of results is the use class or the weight of the surface layer of the textile needled floor covering, which is indicated on the PRODIS label and the product data sheet respectively. Results for part 2 are indicated in the long version of the declaration.</p>	Result of the life cycle assessment
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Table 2: Results of the LCA subject to the use class

Categories evaluated	Unit per m ²	Part 1 – Production stage						Part 3 – End-of-life stage					
		21	22, 22+, 31	23, 32	33			21	22, 22+, 31	23, 32	33		
					A	B	C				A	B	C
					Weight of the surface layer						Weight of the surface layer		
≥225 <500	≥500 <750	≥750 ≤1000	≥225 <500	≥500 <750	≥750 ≤1000								
Primary energy not renewable	[MJ]	45,6	54,2	63,0	88,2	127,4	165,9	-6,0	-7,9	-9,6	-13,6	-17,8	-21,8
Primary energy renewable	[MJ]	0,9	1,0	1,2	1,6	2,2	2,8	-0,09	-0,1	-0,1	-0,2	-0,3	-0,3
Greenhouse potential (GWP 100)	[kg CO2-Äqv.]	2,9	3,5	4,2	6,0	8,9	11,7	0,5	0,7	0,8	1,2	1,5	1,8
Ozone degradation potential (ODP)	[kg R11-Äqv.]	1,5·10 ⁻⁷	1,8·10 ⁻⁷	2,0·10 ⁻⁷	2,7·10 ⁻⁷	3,7·10 ⁻⁷	4,7·10 ⁻⁷	-1,7·10 ⁻⁸	-2,2·10 ⁻⁸	-2,7·10 ⁻⁸	-3,8·10 ⁻⁸	-5,0·10 ⁻⁸	-6,1·10 ⁻⁸
Acidification potential (AP)	[kg SO2-Äqv.]	8,6·10 ⁻³	1,1·10 ⁻²	1,3·10 ⁻²	1,9·10 ⁻²	2,8·10 ⁻²	3,7·10 ⁻²	5,6·10 ⁻⁴	7,4·10 ⁻⁴	9,0·10 ⁻⁴	1,3·10 ⁻³	1,7·10 ⁻³	2,0·10 ⁻³
Nutrication (NP)	[kg PO4-Äqv.]	1,2·10 ⁻³	1,5·10 ⁻³	1,8·10 ⁻³	2,8·10 ⁻³	4,2·10 ⁻³	5,5·10 ⁻³	1,2·10 ⁻⁴	1,6·10 ⁻⁴	1,9·10 ⁻⁴	2,7·10 ⁻⁴	3,5·10 ⁻⁴	4,3·10 ⁻⁴
Photochemical oxidant formation	[kg Ethen-Äqv.]	1,2·10 ⁻³	1,4·10 ⁻³	1,6·10 ⁻³	2,2·10 ⁻³	3,0·10 ⁻³	3,8·10 ⁻³	1,2·10 ⁻⁵	1,6·10 ⁻⁵	1,9·10 ⁻⁵	2,7·10 ⁻⁵	3,6·10 ⁻⁵	4,4·10 ⁻⁵

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

<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
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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.

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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-2010711-D“ applicable.