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## ALTERNATIVE100

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### 1. Recycled Content

- a. 69 % Overall recycled content
- b. Yarn  
100% ECONYL® Aquafil - 100% Recycled Space Dyed Nylon  
ECONYL® is manufactured using post-industrial and post-consumer Polyamide 6 waste, making it 100% sustainable.
- c. Primary Backing  
Colback SMR is produced out 100% post-consumer recycled PET, originated from bottle scrap.
- d. Secondary Backing – back2back  
The waste from the tile cutting process is shredded and added to the secondary backing, giving it a 10% post-industrial recycled content.

### 2. Production site

modulyss® centers all activity on 1 single production site (Zelev, Belgium), this allows us to reduce internal transportation and limits our CO<sub>2</sub> emissions drastically.

- a. Our production site is ISO-9001 (Quality Management) certified since 2000 and ISO-14001 (Environmental Management) since 2009.
- b. modulyss® works in accordance with ISO26000 and publishes a Corporate Social Responsibility report in line with the GRI guidelines.

### 3. Installation

- a. Adhesive  
modulyss® advises to use a solvent-free, easy release system with very low emissions.
- b. Installation waste  
In a rectangular building, installed before walls, using our installation descriptions the waste for Carpet tiles is 3-4%.  
In comparison for broadloom the waste during installation rises till +/- 10%.

### 4. End of Life

- a. Re-use  
At the end of life, after cleaning, carpet tiles can be re-used in non-critical areas, to extend the product life.
- b. Recycling  
Carpet tiles can be used as raw material for the backing of new carpet tiles in our back2back program.
- c. CARE  
Partnership modulyss®/ Vanheede Environment Group in which carpet tiles are converted into secondary fuel to reduce CO<sub>2</sub> emissions drastically.

### 5. Voc's & Chemical Substances

This product fulfills the testing criteria for emissions of:

- a. DIBT (DE)  
Deutsche Institute für BauTechnik  
TVOC28 < 1,0 mg/m<sup>3</sup>  
This product is DIBT-certified, Abz-nummer Z-156.601-604.



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- b. **CRI (US and international)**  
Carpet & Rug Institute  
Compliant to the requirements of Green Label Plus, GLP 1101 (see LEED®, point 6.b)
- c. **GUT (DE)**  
Gemeinschaft Umweltfreundlicher Teppichboden  
TVOC<sub>28</sub><100 µg/m<sup>3</sup>  
This product meets the GUT-criteria, GUT-license number F5450983. These criteria include VOC thresholds, odour and chemical substances.
- d. **REACH (EU)**  
modulyss® complies with the strict European REACH standards.
- e. **Living Building Challenge Red List & US EPA Chemicals Concern List**  
modulyss® has obtained declarations from all of our suppliers that the materials supplied do not contain any of the substances listed, nor is any of these substances added to our production process.

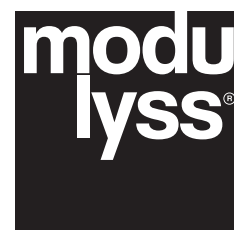
## 6. Life Cycle Analysis & Compliance to Green Building Certifications

- a. **BRE Global (UK)**  
Building Research Establishment  
Ecopoint score 0,264  
This product is rated for offices according to the BRE Green Guide to Specification. The BRE Global Environmental Profiles Certificate number ENP 428b, A<sup>+</sup>-rated for offices. For more information on the Green Guide to Specification visit [www.bre.co.uk/greenguide](http://www.bre.co.uk/greenguide) or [www.greenbooklive.com](http://www.greenbooklive.com)  
  
*BREEAM 2011*  
This product can contribute towards credits in Mat 01 Life Cycle Impacts - to recognise and encourage the use of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building. For more information on BREEAM visit [www.breeam.org](http://www.breeam.org).
- b. **LEED (US and international)**  
Leadership in Energy and Environmental Design  
This product can contribute towards satisfying IEQ Credit 4.1 (low emitting materials – adhesives & sealants), IEQ 4.3 (low emitting – flooring systems), MR Credit 4 (recycled content) and MR Credit 5 (regional materials). Products are not reviewed under LEED, LEED credit requirements cover the performance of materials in aggregate, not the performance of individual products of brands. For more information on LEED, visit [www.usgbc.org/contact](http://www.usgbc.org/contact)  
  
Total MR4 Recycled content: 39,4%  
MR4 Post-Industrial RC: 58,5%  
MR4 Post-Consumer RC: 10,1%
- c. **HQE (FR)**  
Haute Qualité Environnementale  
In 2005 modulyss® received the HQE-certificate by the FDES in accordance to the norm NF P01-010.
- d. **ECNZ (NZE)**  
Environmental Choice of New Zealand  
This product is labeled by ECNZ Labeling Program, which encourages sustainable processes and products.

## 7. Green Energy

The electricity that we use at modulyss® is 100% 'green electricity' generated from renewable resources:

- a. In February 2010, modulyss® put its new solar panels into operation. The park has a capacity of 467500kWh, delivering 12% of our total electricity consumption.
- b. The remaining 88% originates from Green Energy purchases.



## 8. Production Process

### a. H<sub>2</sub>O

modulyss® reduced the water consumption for the carpet tile production with 46% since 2008; we only use rain water in production.

### b. Electricity savings

Through a variety of measures, we have succeeded in reducing our electricity consumption by 17% from 2008 to 2011.

### c. Gas

Through intensive investments, we have reduced our own consumption of natural gas by 24% between 2008 and 2011.

### d. Steam

Through the optimization of our processes, the volume of steam needed for production processes has been reduced by 23%.

### e. Recycling raw yarns

All the left overs and waste yarns are collected and recycled into new yarns.

### f. Ecological Packaging

We only use cardboard boxes that are made of 100% recycled material.

### g. Waste reduction

Compared to 2008 we have reduced the amount of residual yarns by 9% and the amount of cutting waste by 12%.

## 9. Health & Comfort

### a. Solvent-free Bitume

For the bitumebacking we only use bitumen that is not oxidized and is solvent-free.

### b. No heavy metals

modulyss® carpet tiles are free of heavy metals and other harmful substances, such as lead, mercury or chromium.

### c. Odour

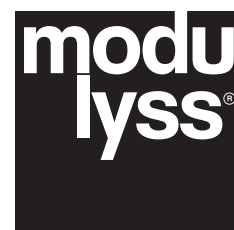
modulyss® carpet tiles are free from odours (see GUT certification program).

### d. Acoustics

This product is strongly sound absorbent. It reduces the contact noise by 33 decibels ( $\Delta L$ : 1 000 Hz - ISO10140), with a perfect acoustic effect as result.

## 10. Light Reflectance Values

COLOR	$\rho$ %
140	16,9
181	15,9
312	12,0
511	11,6
535	10,5
592	3,5
823	10,9
900	7,1
929	7,3
965	4,9
989	6,7



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