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## PERPETUAL

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### 1. Recycled Content

- a. 8 % Overall recycled content
- b. Yarn
  - 100% Polyamide 6 Alto
- 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® only has one production site (Zelee, Belgium), which makes it possible for 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, Corporate Social Responsibility.

### 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. Emissions

This product fulfills the testing criteria for emissions of:

- a. GUT (DE)  
Gemeinschaft Umweltfreundlicher Teppichboden  
TVOC28<100 µg/m<sup>3</sup>
- b. DIBT (DE)  
Deutsche Institute für BauTechnik  
TVOC28<1,0 mg/m<sup>3</sup>
- c. CRI (US and international)  
Carpet & Rug Institute  
Compliant to the requirements of the Green Label Plus programme (see LEED®, point 6.b)

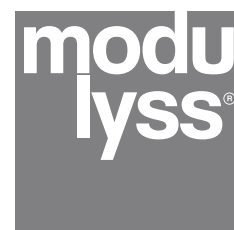
## 6. Compliance to Green Building Certifications

- a. BRE Global (UK)  
Building Research Establishment  
Ecopoint score 0,34  
This product is rated for offices according to the BRE Green Guide to Specification. The BRE Global Environmental Profiles Certificate number ENP 448k, A-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 (recycled 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)
- 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. DIBT (DE)  
Deutsche Institute für BauTechnik  
This product is DIBT-certified, Abz-nummer Z-156.601-604.
- e. GUT (DE)  
Gemeinschaft Umweltfreundlicher, Teppichboden  
This product meets the GUT-criteria, GUT-license number 20641.
- f. REACH (EU)  
modulyss® complies with the strict European REACH standards.

## 7. Green Energy

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

- a. 14% of our consumption is, since February 2010, covered by our own Solar Panels on site-roof.
- b. The remaining 86% of the energy consumption is 100% Green Energy Purchase



## 8. Production Process

- a. **H<sub>2</sub>O**  
modulyss® reduced the water consumption for the carpet tile production with 44% since 2008.
- b. **Electricity savings**  
Through a variety of measures, we have succeeded in reducing our electricity consumption by 41% in only 2 years.
- c. **Gas**  
Through intensive investments, we have reduced our own consumption of natural gas by 50%.
- d. **Steam**  
Through the optimization of our processes, the volume of steam needed is reduced till half.
- e. **Recycling raw yarns**  
All the remainder 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**  
In 2008, we reduced the volume of yarns and cut-waste by 25%.

## 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 38 decibels (ISO354), with a perfect acoustic effect as result.

## 10. Light Reflectance Values

COLOR	ρ %
136	17,4
221	19,8
313	5,1
352	8,6
355	5,2
432	5,1
515	6,3
517	12,8
519	9,5
541	4,5
585	6,5
592	7,1
617	14,4
626	7,6
668	6,0

COLOR	ρ %
823	9,5
827	5,8
830	6,6
907	10,6
915	15,9
942	18,3
965	7,3
966	3,8
989	6,0

COLOR	ρ %
21F	21,8
25F	15,3
30F	8,2
41F	7,7
45F	4,4
50F	7,4
55F	8,4
60F	13,9
65F	13,1