

The logo for ntgrate, featuring the word "ntgrate" in a bold, lowercase, sans-serif font, followed by a registered trademark symbol (®). The background is dark gray with thin white lines forming a geometric pattern of triangles and diamonds.

ntgrate[®]

Solutions for sustainable buildings



Shaping a sustainable future.

Increased existence of green building rating systems, the rise of net-zero buildings, and a sharper focus on existing structures are among the trends that will drive sustainability through 2020.

As ntgrate is supporting the green recovery of our planet, we work hard on obtaining all leading green certificates.

Furthermore ntgrate products can contribute to the overall sustainability level of the building, thus achieving points for building certificates such as LEED and BREEAM.

Using ntgrate flooring solutions no less than 12 LEED credits can be achieved.

The feasibility to obtain these credits were analysed and confirmed by an independent and qualified expert engineering company, Encon, specialized in optimising energy consumption.

Let's integrate.

What does LEED mean? 06

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Energy & atmosphere (EA)
Optimize energy performance 014

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Fair Chloé



Say what?

— Deliver and validate the sustainability value of your project.

LEED Certification stands for **Leadership in Energy and Environmental Design**.

It is the accepted benchmark for the design, construction, and operation of high performance green buildings. Certification assures that a building project is environmentally responsible, profitable, and a healthy place to work.

This Green Building Rating System is a voluntary, evolving, consensus-based **international standard** for developing high-performance, sustainable buildings, using a comprehensive, point-based system. This LEED certification is initiated by USGBC (US Green Building Council) and is internationally recognized.

The certification confirms that a building is designed and built to achieve a performance that surpasses national standards for energy savings, water efficiency, CO2 emissions reduction, indoor environmental quality, stewardship of resources and sensitivity to their impacts.

Supporting the green recovery.



Say how?

— *How does it work?*

LEED topics are specified in **9 different main categories**, with multiple credits, on which the building is evaluated. The LEED certification process uses a point system to **determine the environmental merits of a building**; there are different rating systems for homes, commercial buildings, interior renovations, schools, neighborhood developments, and other construction projects.

Increase the architectural value of your project.

Categories.

1. Sustainable Sites (SS)
2. Innovation in Design (IN)
3. Energy and Atmosphere (EA)
4. Regional Priority (RP)
5. Materials and Resources (MR)
6. Integrative Process (IP)
7. Indoor Environmental Quality (EQ)
8. Location and Transportation (LT)
9. Water Efficiency (WE)



The award goes to.

— *How to get a LEED rating.*

Projects pursuing LEED certification earn points for various green building strategies across several categories based on the number of points achieved. LEED points are awarded per credit on a 100-point scale (+10 bonus points), resulting in **4 levels of performance** for the most projects: **Certified, Silver, Gold and Platinum**. The level of your project depends on how many points the project has earned.

Compare a building objectively with other buildings.

			
Platinum	Gold	Silver	Certified
80+ points earned	60-79 points earned	50-59 points earned	40-49 points earned



Fair Coralie



ntgrate credits

— Overview

Using ntgrate woven vinyl flooring, up to 14 credits can be gained on the following categories/ issues (according to BREEAM International New Construction 2016:

Category	Issue	Max. credits	tiles ⌘	rolls ⌘	klic ⌘
Energy & atmosphere (EA)	Optimize energy performance	max. 18	1		1
Materials & resources (MR)	Building life-cycle impact reduction	max. 5	2		2
	Building product disclosure and optimization - environmental product declarations	max. 2	1		1
	Building product disclosure and optimization - sourcing of raw materials	max. 2	2		2
	Building product disclosure and optimization - material ingredients	max. 2	2		2
Indoor environmental quality (EQ)	Low-emitting materials	max. 3	1		1
	Indoor air quality assessment	max. 2	2		2
	Acoustic performance	max. 1	1		1
Total			12		12



Optimize Energy Performance .

— *Energy & atmosphere - EA*

AIM

To achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use.




Assessment criteria

- Option 1. Whole-building energy simulation.
Analyze efficiency measures during design process and energy simulation.
Follow the criteria in Prerequisite to demonstrate a percentage improvement in the proposed building performance rating compared with the baseline.
- Option 2. Prescriptive compliance: ASHRAE Advanced Energy Design Guide

Ntgrate solutions

- Underfloor heating will bring extra comfort to any place, using ntgrate floor. All ntgrate floors have R-values that combine well with underfloor heating.



			MR max. 5
2	2	2	

Building life-cycle impact reduction.

— *Materials & resources - MR*

AIM

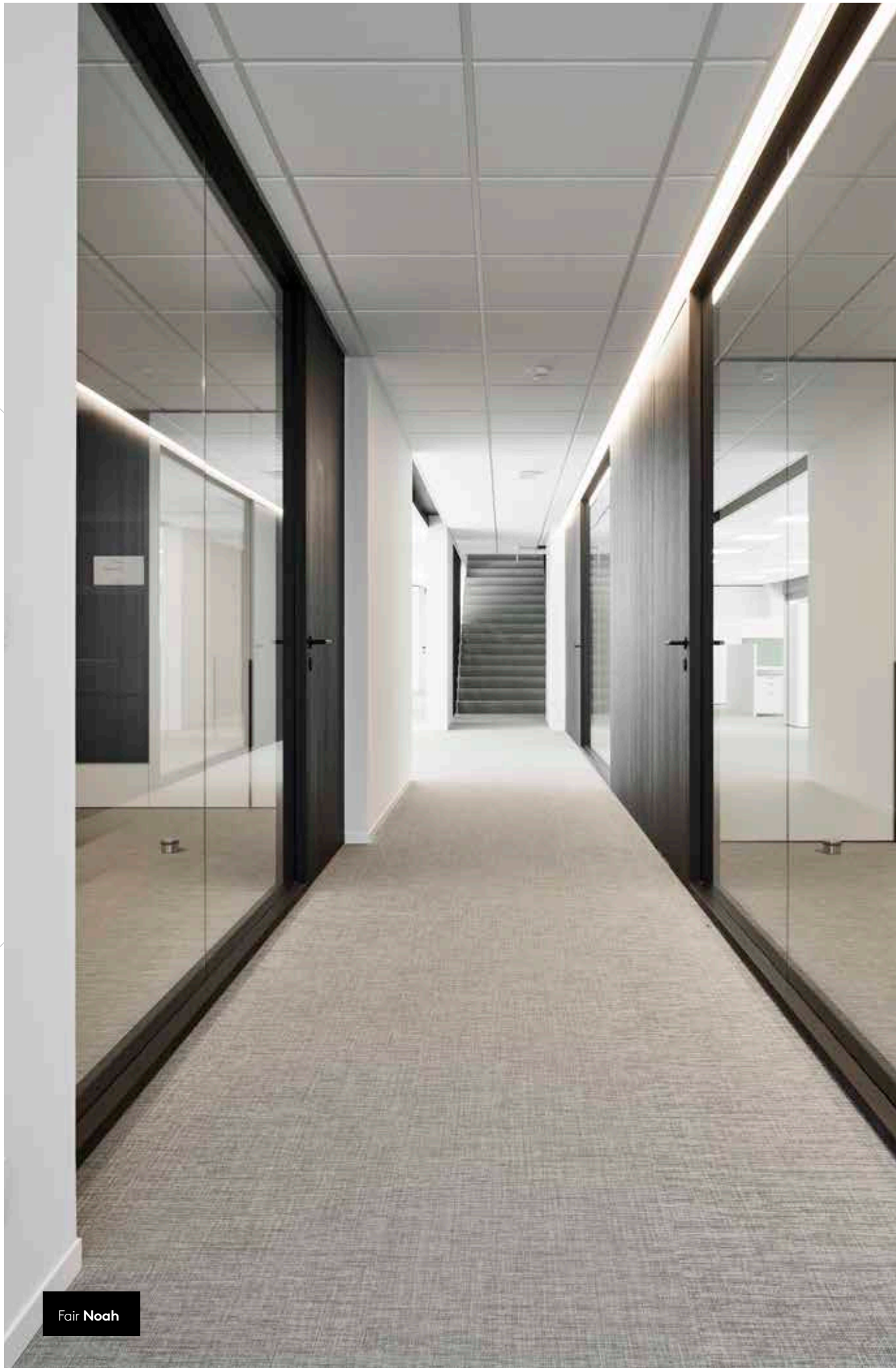
To encourage adaptive reuse and optimize the environmental performance of products and materials.

Assessment criteria



- Demonstrate reduced environmental effects by reusing existing building resources or demonstrating a reduction in materials use through LCA.
- Building and material reuse.
Reuse or salvage building materials from off site or on site as a percentage of the surface area. Include structural elements, enclosure materials and permanently installed interior elements
- Whole-building life-cycle assessment.
Conduct a LCA of the project's structure and enclosure that demonstrates a minimum of 10% reduction, compared with a baseline building, in at least three of the six impact categories: global warming potential, depletion of ozone layer, acidification, eutrophication, formation of ozone, depletion of nonrenewable energy resources.

Ntgrate solutions

- To promote circularity, ntgrate supports initiatives to collect and recycle on the construction site.



Fair Noah

			MR max.
1	1	1	2

Environmental Product Declarations.

— *Materials & resources - MR* *Building Product Disclosure and Optimization*

AIM

To encourage the use of products and materials for which life cycle information is available and that have environmentally, economically, and socially preferable life cycle impacts.

To reward project teams for selecting products verified to have been extracted or sourced in a responsible manner.




Assessment criteria

- Environmental Product Declaration (EPD): Use 20 different installed products from at least five different manufacturers that meet one of the disclosure criteria:
 - Product-specific declaration:
 - EPD: ISO 14025, 14040, 14044 and EN 15804 or ISO 21930 and at least a cradle to gate scope
 - USGBC approved program

Ntgrate solutions

- Ntgrate has conducted a life cycle assessment (lca). The aim is double: we reduce the environmental impact of our products and additionally help building contractors or project leaders in reducing their building's environmental impact.
- The outcome of the lca assessment is an environmental profile declaration (epd) for the entire life cycle of a product: from extraction to processing, manufacturing, installation and maintenance, up to its end-of-life treatment. The epd addresses all the environmental key issues: climate change, ozone depletion, acidification, consumption of minerals and water, air and water pollution and the amount of waste.



			MR max.
2	2	2	2

Sourcing of Raw Materials.

— *Materials & resources - MR* *Building Product Disclosure and Optimization*

AIM

To encourage the use of products and materials for which life cycle information is available and that have environmentally, economically, and socially preferable life cycle impacts.

To reward project teams for selecting products verified to have been extracted or sourced in a responsible manner.

Assessment criteria

- Raw material source and extraction reporting: Use 20 different installed products from at least five different manufacturers that have released a report from their raw material suppliers which include:
 - Raw material supplier extraction locations
 - Commitment to long-term ecologically responsible land use
 - Commitment to reducing environmental harms
 - Commitment to meeting applicable standards that address responsible sourcing criteria.
- Leadership extraction practices Meet one of criteria below for at least 25%, by cost, of the total value of building products:
 - Recycled content: use materials with recycled content
 - Assessment only for permanently installed materials & furniture
 - Material manufacturing study required

Ntgrate solutions

- Ntgrate is convinced that restricting the environmental impact of all its products and activities...



Noble Jutta

			MR max.
2	2	2	2

Material ingredients.

— *Materials & resources - MR* *Building Product Disclosure and Optimization*

AIM

To encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically, and socially preferable life-cycle impacts.

To reward project teams for selecting products for which the chemical ingredients in the product are inventoried using an accepted methodology and for selecting products verified to minimize the use and generation of harmful substances.

To reward raw material manufacturers who produce products verified to have improved life-cycle impacts.

Assessment criteria

- Material ingredient reporting (option 1)
Use products from manufacturers that use any of the programs to demonstrate the chemical inventory (Manufacturer Inventory, Health Product Declaration, Cradle to Cradle, USGBC approved program)
- Product manufacturer supply chain optimization: use building products that (option 3):
 - are sources from product manufacturers who engage in validated and robust safety, health, hazard, and risk programs.
 - are sources from product manufacturers with independent third party verification of their supply chain.

Ntgrate solutions

- Ntgrate is committed to use raw materials from selected approved suppliers, only if these have proven evidences of ISO 14001/...
- To promote circularity, ntgrate supports initiatives to collect and recycle on the construction site.



Low-Emitting Materials.

— *Indoor environmental quality - EQ*

AIM

To reduce concentrations of chemical contaminants that can damage air quality, human health, productivity and the environment.

Assessment criteria

- List all specified interior as applicable to the project's scope of work:
 - Collect the VOC values (formaldehyde, particulates, ozone, TVOCs, CO)
 - Stay under the LEED VOC Baseline




Ntgrate solutions

- Emissions from building products = Low levels of VOC from the specified flooring
- Indoor air quality measurement = Low levels of VOC from the specified flooring

			EQ max.
1	1	1	3



Fair Celine

			EQ max.
2	2	2	2

Indoor air quality assessment.

— *Indoor environmental quality - EQ*

AIM

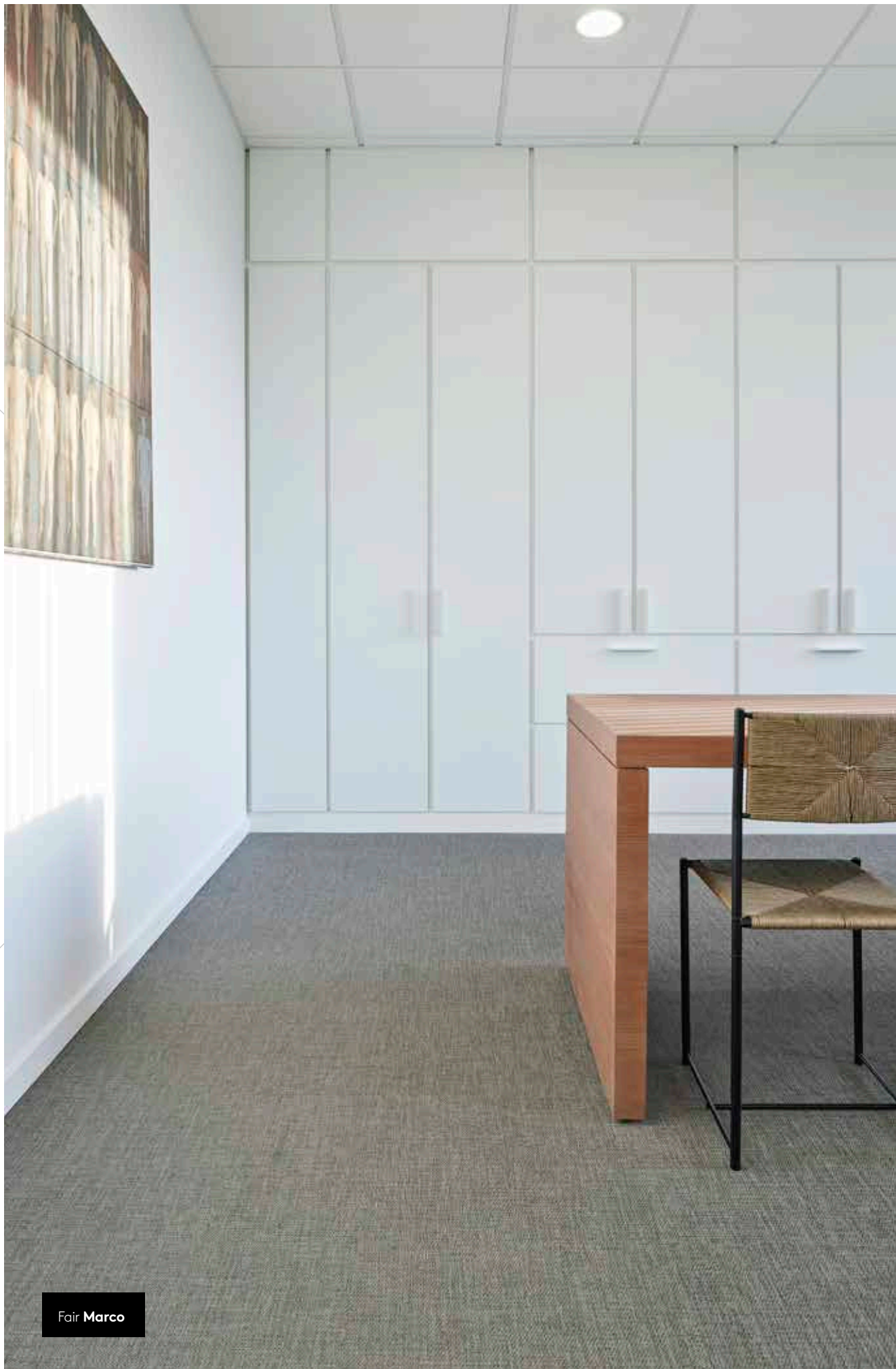
To establish better quality indoor air in the building after construction and during occupancy.




Assessment criteria

- Air testing (Option 2): Demonstrate that contaminants do not exceed the concentration levels (formaldehyde, particulates, ozone, TVOCs, CO).

Ntgrate solutions

- Emissions from building products = Low levels of VOC from the specified flooring.
- Indoor air quality measurement = Low levels of VOC from the specified flooring.



			EQ max.
1	1	1	1

Acoustic Performance.

— *Indoor environmental quality - EQ*

AIM

To provide (work)spaces that promote occupants wellbeing, productivity, and communications through effective acoustic design.

Assessment criteria

- Minimize the effect on building occupants of site exterior noise produced by road traffic, aircraft flyovers, railroads, etc.
- Interior noise – Acoustical finishes.
- Meet local applicable codes or 2010 FGI Guidelines and 2010 SV Guidelines.

Integrate solutions

- Emissions from building products = Low levels of VOC from the specified flooring.
- Indoor air quality measurement = Low levels of VOC from the specified flooring.

ntgrate. The key to a sustainable building.

LEED is a popular green building certification system for building projects. ntgrate is dedicated to producing **enduring, energy-efficient flooring** in ways that will support a greener future. At ntgrate, we believe constructing buildings in ways that protect the environment and safeguard the health of those that use them.

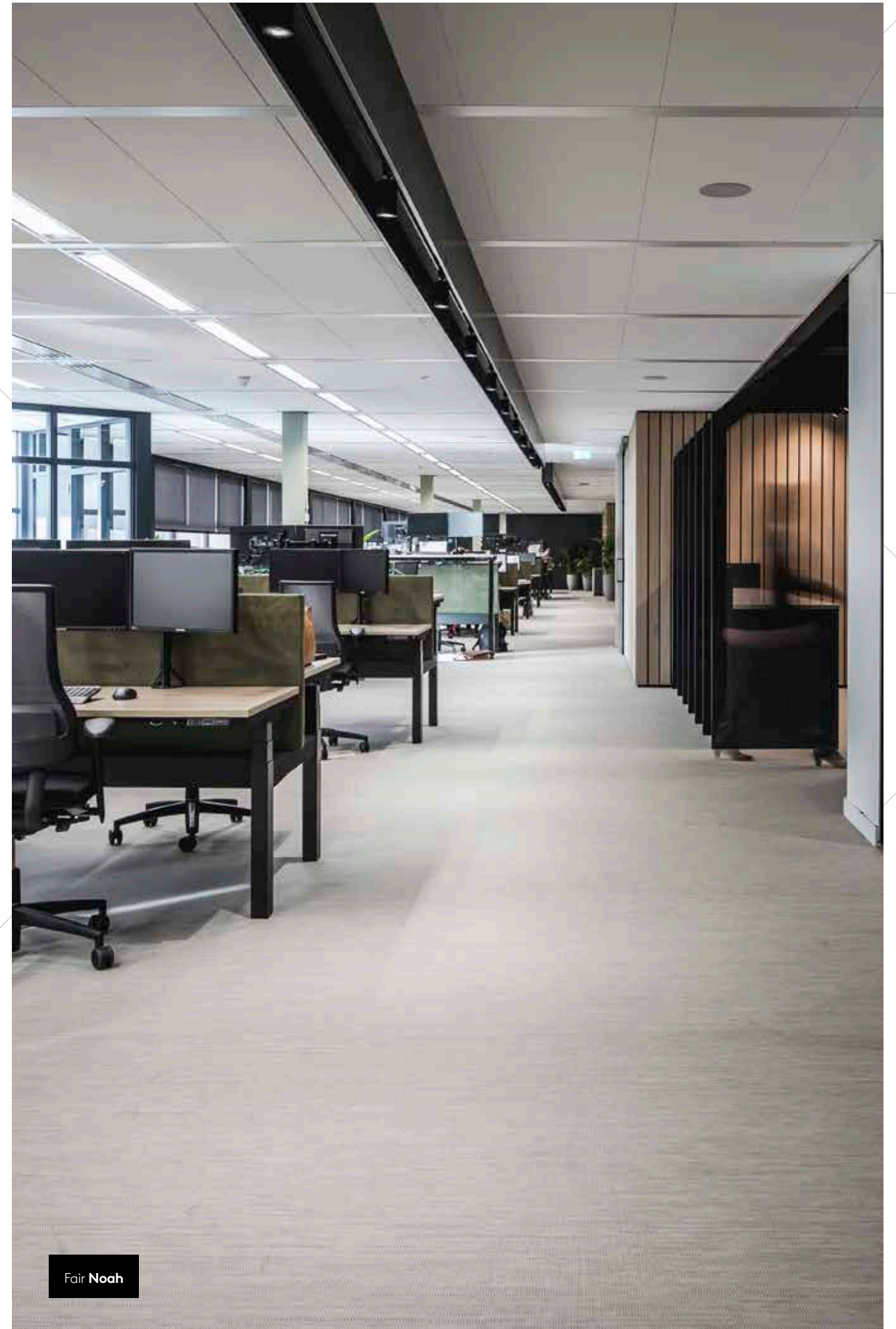
Ntgrate's long-lasting and energy-efficient tiles, rolls and klic can be an integral part of your project's LEED certification. Ntgrate products can contribute to **12 points**. The feasibility to obtain these points were analyzed and confirmed by an independent and qualified expert engineering company, ENCON, specialized in optimizing energy consumption.

To assist you in achieving these points, ntgrate specialists can help you to select the most appropriate solutions for your project and **provide you with the necessary documents**, re-quired for the LEED application. This will include the general documents and certificates, but also project specific information, all to increase your LEED score

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ntgrate®

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