

## CRADLE TO CRADLE – SUSTAINABLE CONSTRUCTION

CIRCULARITY AND HEALTH FOR GENERATIONS

## FROM PRODUCT IDEA TO CIRCULAR ECONOMY

A building like a tree, that "cleans water and air, produces oxygen, generates soil and nutrients". That is the vision of Professor Michael Braungart, who developed the C2C design concept – a holistic approach to product design, manufacturing methods and processes that takes account of the entire life cycle. The great challenge is not to minimise the use of resources but to manage them in cycles, with the aim of doing things better, rather than less badly.

#### **CIRCULARITY AS A MATTER OF PRINCIPLE**

The guiding principle pursued by company founder A.W. Keim was to take a mindful look at the future and coming generations. With our products and our entrepreneurial activity, we have remained consistently true to this principle for more than 140 years. And we are consequently moving on from a linear to a circular approach in order to face up to the requirements of the EU Green Deal for a lifecycle-based "design for sustainability", making an essential and measurable contribution to the circular economy. Certifying our products according to the Cradle to Cradle Certified® Products Program is therefore not our final objective but an important step on the way to a circular industry.

#### COMPREHENSIVE CERTIFICATION PROCESS

Cradle to Cradle Certified® is the world's most advanced, science-based standard for designing and making products today that enable a healthy, equitable, and sustainable tomorrow. Cradle to Cradle Certified® is a registered trademark of the Cradle to Cradle Products Innovation Institute (C2CPII). The products are assessed according to differing criteria in 5 comprehensive categories: material health, material reutillization, renewable energy, water stewardship and social fairness. Independent third parties examine and assess the substances contained in all products. To this end, KEIM worked with the accredited assessor EPEA -Part of Drees & Sommer from Hamburg. The successful audit was confirmed by the Cradle to Cradle Products Innovation Institute.



Cradle to Cradle Certified® stands for a continuous improvement process.

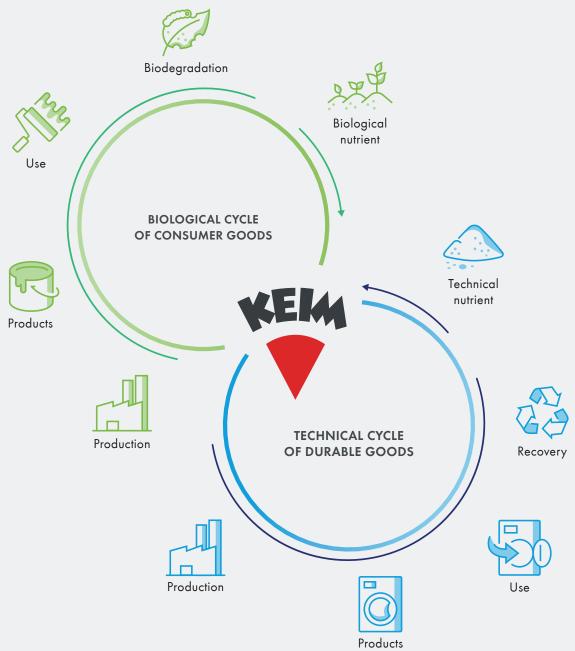
Recertification is carried out every 2 years to avoid stagnation and to verify product and process optimisations.



Rüdiger Lugert, Managing Director KEIMFARBEN

"As leading specialist for mineral building protection, we are called upon to think ahead to a liveable future and to act accordingly already now in the present.

Cradle to Cradle Certified® confirms that we do justice to this responsibility – not just with our products and system solutions but also with our social commitment inside and outside the company."



#### **CRADLE TO CRADLE CERTIFIED®**

The Cradle to Cradle Certified® certificate sees materials as substances that are made available to new processes after use. All substances contained in the products must therefore be assessed scientifically for circularity, in order to make a useful contribution to the environment from production via utilisation through to returning the substances to the cycle. A distinction is made between commodities and consumables. When commodities come to the end of their use, they are disassembled into pure-grade raw materials and returned to a technical cycle. At the end of the use phase for consumables, these go back into the natural, biological cycle. Paints are allocated to the biological cycle. They are "consumed" during use and their component parts are returned

to the environment in the long term through erosion, wear etc. KEIM paints are made of mineral and natural raw materials and already protect or improve the biosphere while in use. They are extremely durable and also score with attributes such as their ability to degrade air pollutants, or their particularly high vapour permeability. We are convinced that the industry's innovation capabilities will offer new recovery possibilities in future and that urban mining will become a serious source of raw materials. Our C2C certified products already lay the cornerstone for the future, precisely because the end of life of a building lies far ahead, with the need for renovation and maintenance of its component parts in the meanwhile.



BETTER GREEN BUILDINGS WITH KEIM

## ROLE MODEL FOR CIRCULAR PRODUCTS



Marina One Singapore, KEIM Concretal-Lasur; on the left: Alnatura Campus Darmstadt, Germany, KEIM Lignosil-Inco

KEIM has always been a pioneer when it comes to sustainability and takes the lead in the construction industry with the certification of 65 products in 4 product groups. This accounts for more than 80% of KEIM's paint sales. All products received the Cradle to Cradle Certified® certificate in silver. During certification, the products and processes were assessed in the following 5 categories.



All contained substances were identified and subject to independent toxicological assessment. It is guaranteed that they do not contain any forbidden substances from the Banned List. C2C certified products are neither a health risk nor an environmental risk.



All products are assessed according to the circularity index and ensure trouble-free recycling capability, thus safeguarding the effective use of finite resources.



The amount of energy consumed during the production process was recorded, together with the share of renewable energy. KEIM uses 100% green electricity in its production process. C2C certified products contribute towards energy security and energy independence.



Water is acknowledged as a valuable resource and water catchment areas are protected to keep clean water available for people and all other organisms. C2C certified products maintain and improve the quality of water.



Social commitment and working conditions are assessed along the entire supply chain. C2C certified products help to respect human rights and contribute to a fair, just society.

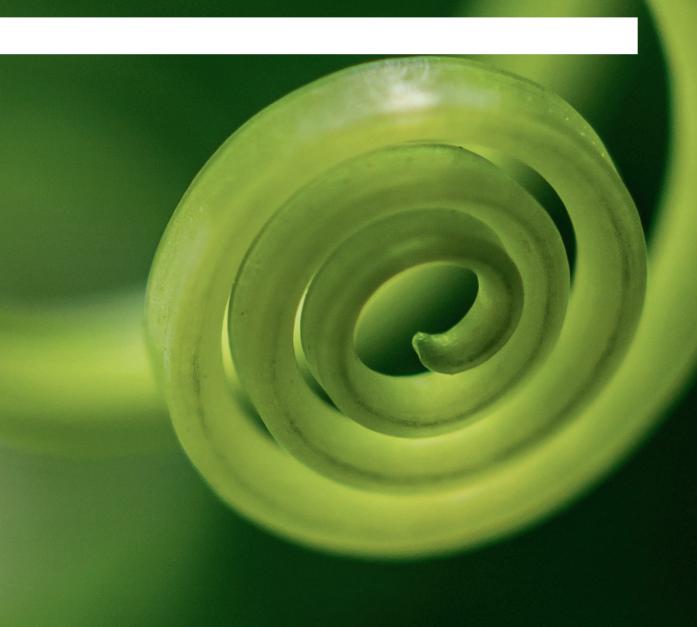


Scan QR code to find out more:

## KEIM – IN HARMO NATURE AND THE

Building in a sustainable, environmentally friendly and resource-saving way means energy-efficient planning and the conscious selection of durable, healthy and circular materials.

# NY WITH ENVIRONMENT



#### FOR NATURAL WELL-BEING

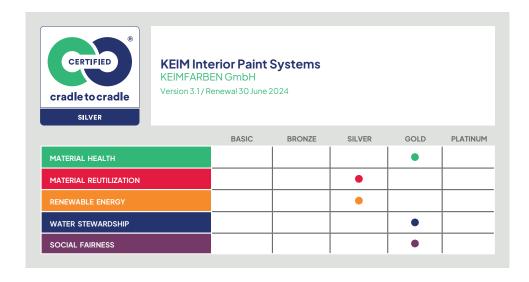
### KEIM INTERIOR PAINT SYSTEMS



Interior paints have a significant influence on the quality of the ambient air and should therefore be chosen carefully.

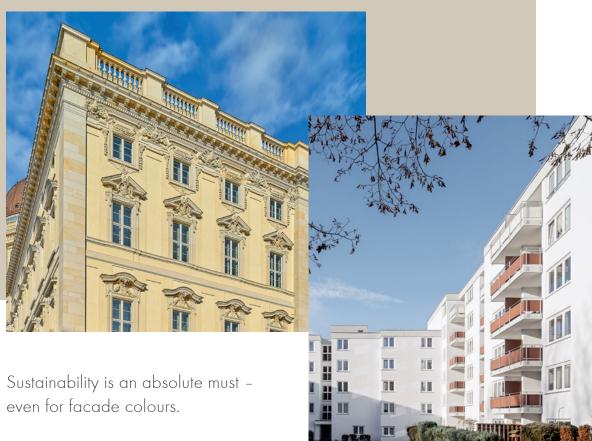
#### THE ADVANTAGES:

- Without added preservation agents, solvents and plasticisers
- Without active fogging substances
- Vapour permeable and moisture regulating
- Mould repellent because naturally alkaline
- Non-flammable, no toxic gases
- Naturally velvet appearance
- Extremely high colour stability
- Verifiably suitable for allergy suffers in particular



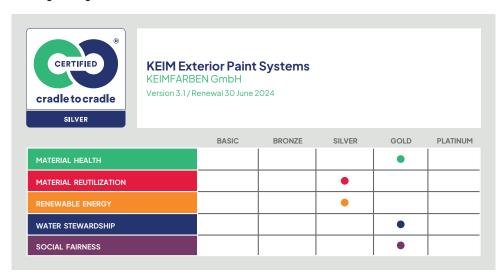
#### WITH UNRIVALLED COLOUR STABILITY

## KEIM EXTERIOR PAINT SYSTEMS



#### THE ADVANTAGES:

- Unrivalled durability and colour stability
- Very economical and resource-friendly
- Many varied design possibilities
- Ideal moisture balance prevention of algal and fungal infestation
- Long-lasting clean facades



MINERAL PAINTS FOR MINERAL BUILDING MATERIAL

### KEIM CONCRETE SYSTEMS



#### THE ADVANTAGES:

- Mineral matt protection and natural impression of pure concrete aesthetics
- Almost unlimited design possibilities natural concrete look or colours for many different glaze effects
- Low diffusion resistance, i.e. swift re-drying and outstanding moisture protection
- UV-stable and absolutely lightfast thanks to purely mineral pigments

Mineral paints and glazes are given the character of concrete even when coloured.



#### THE WORLD'S FIRST MINERAL PAINT FOR WOODEN SURFACES.

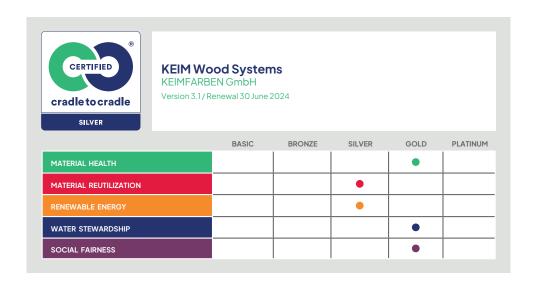
### KEIM WOOD SYSTEMS



Innovative wood paints and glazes for a sustainable building material with tradition and a future.

#### THE ADVANTAGES:

- Extremely weather-resistant and durable
- UV-stable and absolutely lightfast
- Outstanding moisture protection
- Low diffusion resistance
- Easy to renovate
- Particularly economical, ecological and sustainable





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