

Material transparency

2019 EMEA WHITE PAPER



Driving
collaboration

Towards
healthier
and more
sustainable
buildings.

 **Tarkett**



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The built environment is under pressure to improve its health and environmental performance as interest in healthy indoor environments grows.

We spend close to 90% of our time indoors.¹ But in the drive to improve building energy efficiency, new buildings are often designed to be airtight, negatively affecting indoor air quality.² In fact, indoor air pollution can be up to five times greater than outdoor air pollution,² while concerns surrounding issues such as sick building syndrome³ and the rise in asthma and allergy sufferers have moved the indoor environment further up the public health agenda. As a result, policy-makers, consumers, architects and NGOs are seeking greater transparency on the health and environmental profiles of building materials, as they seek to understand the impact of certain finishes on human wellbeing. These concerns will only grow as urban populations expand, with 70% of people expected to live in cities by 2050.³

Additionally, sustainable building schemes such as BREEAM, DGNB, HQE, LEED and WELL⁴ are making

material health criteria an integral part of their scoring systems. In particular, they are focusing on material quality and composition, going beyond current European regulatory disclosure requirements for hazardous substances according to REACH.

Creating greater transparency in the construction supply chain

The construction industry is beginning to request more detailed product content information in order to respond effectively to evolving regulations and sustainable building schemes, as stakeholders' interest in the built environment's health and environmental impacts grows. However, existing material disclosure systems do not provide sufficiently detailed information on the health and/or social and environmental footprint of individual materials.

To help meet the construction industry's need for more granular information, drive collaboration on sustainability and move ahead of regulation, Tarkett, one of the world's flooring leaders, is seeking to improve transparency in the construction supply chain with its new Material Health Statement™ (MHS) disclosures. Developed together with the Environmental Protection and Encouragement Agency (EPEA), the Tarkett MHS goes beyond compliance, providing clear, transparent information on the health and environmental profile of the materials in our products, including any potential risks.

This builds on our efforts to provide customers with clear Environmental Product Declarations, taking our transparency journey to the next level. Indeed, communicating transparently about our sustainability progress, products and ambitions is a critical component of our sustainability strategy, Doing Good. Together, which guides our efforts to help our customers create people-friendly spaces. We listen to our customers and collaborate with all our stakeholders to design products that deliver optimal performance, promote healthy living and respect natural resources. We are harnessing the results of the EPEA assessments to assist this journey of continuous improvement and product optimisation, as we make the shift to a circular economy.

Towards more rigorous material health disclosure

Importantly, the MHS will help to cut through the confusion surrounding existing disclosure systems – which often rely on material inventories and screening unclear methodologies – while protecting proprietary information.

For example, material inventories simply provide a list of all the raw materials used in production; they do not disclose the health or environmental profile of these chemicals or advise whether they pose a threat to human health in the product intended use. Screening every material thoroughly for hazard risks can help to create greater transparency and improve building sustainability. This is achieved by reviewing every chemical against European regulations (such as REACH and CLP⁵) or international standard (such as the Green Screen List Translator). While this helps to publicly disclose hazard risks, it does not provide independently verified information on the final product composition or behaviour of those chemicals during use and post-use handling.

The MHS complements indicators provided by the Environmental Product Declaration (EPD). EPDs are developed on the basis of Life Cycle Assessment (LCA), according to a standardised framework and process for development, verification and communication. The data provided in EPDs is not easy for non-experts to evaluate. Additionally, EPDs do not reveal any qualitative detail about the current health risks and impact of materials in the final product while it is in use. Moreover, the complexity and uncertainties surrounding health impact-related data limits the potential of EPDs to address this aspect. The MHS provides detailed information regarding hazards and an assessment of material risks, helping to bridge the gap and deliver information that can be missing from EPDs.

To achieve tangible, significant change, Tarkett is encouraging the industry to take the next step toward full transparency by moving beyond material inventories and screening. In particular, its MHS will provide the building industry with an independently verified, science-based product ingredient disclosure and material assessment declaration, highlighting any potential risks or hazards. The information will be based on the independent Cradle to Cradle material assessments performed by EPEA and provided to customers in the form of clearly structured, accessible disclosure statements and certificates.



¹ U.S. Environmental Protection Agency. 1989. Report to Congress on indoor air quality: Volume 2. EPA/400/1-89/001C. Washington, DC

² Hulin et al. Respiratory health and indoor air pollutants based on quantitative exposure assessment, European Respiratory Journal, Oct 2012

³ <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

⁴ These schemes are: the Building Research Establishment Environmental Assessment Method, German Sustainable Building Council, High Environmental Quality (France), Leadership in Energy and Environmental Design and the WELL Building Standard.

⁵ These regulations are: Registration, Evaluation, Authorisation and Restriction of Chemicals, Classification, Labelling and Packaging of substances and mixtures

A journey of continuous improvement and product optimisation

Tarkett has actively pursued a process of continuous product assessment, improvement and optimisation for some years. In particular, we have worked with EPEA since 2011, developing and optimising products using the Cradle to Cradle Certified™ Product Standard, which focuses on five key areas: material health, material reutilisation, renewable energy and carbon management, water stewardship, and social fairness.⁶ To select good materials and design products respecting people's health and the environment, more than 3000 materials⁷ have been assessed since 2010 by an independent third party (EPEA) following C2C criteria.

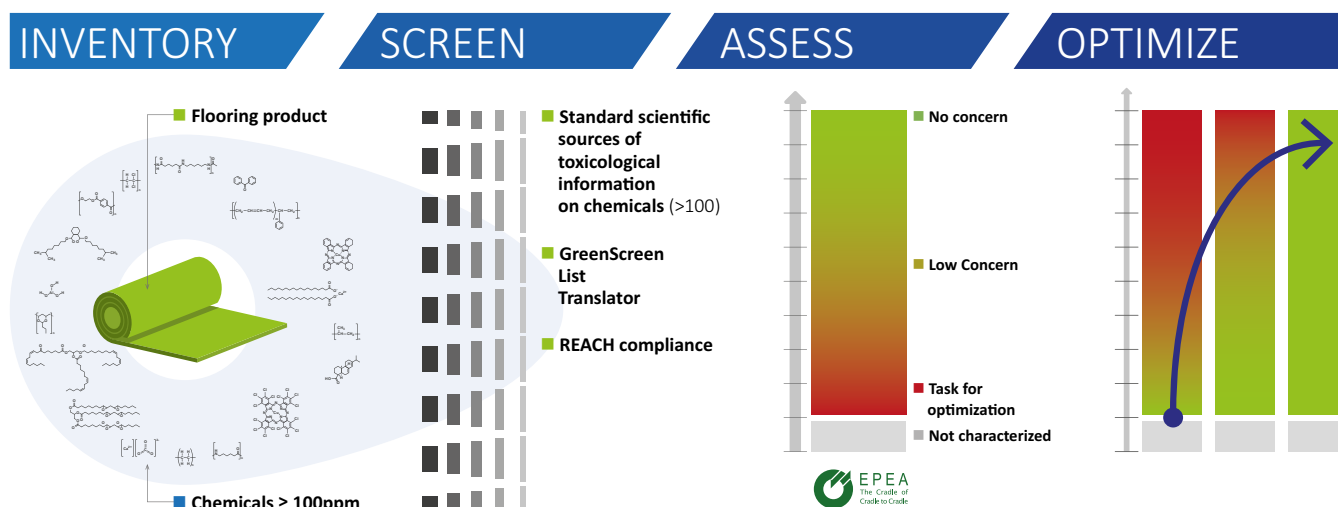
EPEA evaluates the potential health and environmental impacts of each material throughout the product's life – from extraction and production to use and recycling, considering the likelihood of exposure, as well as the hazards associated with any materials used to make the product.

⁶ <https://www.c2ccertified.org/get-certified/product-certification>

⁷ At end of September 2018

The EPEA MHS process encompasses these four steps:

- **Material inventory:** In collaboration with our suppliers, we compile an inventory of the raw materials used in our products, on a basis of 100ppm (parts per million/0.01%), and identify them by Chemical Abstracts Service Registry Number (CASRN).
- **Material screening:** Individual chemicals are screened for their hazard rating according to European REACH and chemicals labelling and packaging regulations, and checked against the Green Screen List Translator (GS-LT), along with more than 100 other chemical hazard lists and scientific sources of toxicological information used by EPEA.
- **Material assessment:** The Cradle to Cradle material assessment conducted by EPEA is specific to Tarkett's material ingredients and suppliers. Materials are assessed over their lifecycle including sourcing, production, use and post-use handling. The safety of every chemical ingredient is assessed using ecotoxicological information, scientific literature, supplier data and analytical testing. The chemical role in the finished product and its effect on occupant exposure is also evaluated.
- **Optimisation:** We reformulate our products using Cradle to Cradle principles. By continuously improving the health and environment credentials of our products, we strive to select materials that can be recovered, recycled and transformed into new products.



What is displayed on the MHS?

Colour-coded rating given by the EPEA

- No concern
- Moderate concern
- High concern – Task for material optimization
- Unknown concern - Task for knowledge development

GreenScreen List Translator Score and GreenScreen Benchmark Score according to Toxnot classification, an American classification of chemicals (<https://toxnot.com/>)

REACH is the European Community Regulation on chemicals and their safe use.
 ✓ Non hazardous substance or <0,1%

Unique numerical identifier assigned by the Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature

Rate of the component in the formula

Comment of the EPEA on the use or the exposure to this component

Formula of the product

Function	Component	CAS	Content	Rating	Comment	GS-LT GS-BM	REACH
Filler	Calcium carbonate	1317-65-3	< 50%	■		LT-UNK	✓
Polymers	Polyvinyl butyral	27360-07-2	< 40%	■	Polymers contributing to the build-up of the different layers, partially with a prehistory of use in former applications	LT-UNK	✓
	Polylactic acid	9051-89-2		■		N.I.	✓
	Additional polymers with minor contributions	Proprietary 2		■		N.I.	✓
Plasticizers	2-Ethylhexanoic acid diester with triethylene glycol	94-28-0	< 10%	■	Plasticizers and additives with an annex role as plasticizers have for a part an agricultural origin and for another part a prehistory of use in former applications	LT-UNK	✓
	Glycerides, castor-oil mono-, hydrogenated, acetates	736150-63-3		■		N.I.	✓
	Soybean oil, epoxidized	8013-07-8		■		LT-UNK	✓

Abstract of the MHS of iD Revolution

Doing Good. Together.

At Tarkett, we believe that together, we can make a positive impact on people and the planet. We strive to make high quality, sustainable flooring to help you create healthier and people-friendly spaces.

Our commitment to health and wellbeing sits at the heart of our sustainability approach, "Doing Good. Together". We focus on three areas: Designing for Life, Closing the Loop and Driving Collaboration.

Firstly, we leverage Cradle to Cradle design to create products that contribute to people-friendly spaces and respect the planet's natural capital. Through our ReStart® takeback programme, we offer our customers the opportunity to manage their flooring waste effectively and give installation off-cuts or post-use flooring a new lease of life by returning them to us for recycling. We then transform them into high quality raw materials for new products. In this way, we can collectively close the loop and shift to a circular economy.

To address the world's great sustainability challenges, we encourage our customers and all our stakeholders to join us in working toward positive change. Being transparent

about our progress on sustainability and sharing clear information about our products and ambitions will help us build on these achievements and move ahead of regulation.

For more information on our Doing Good. Together. strategy, please visit <https://professionals.tarkett.com>

We encourage our customers, our industry, our peers to join us in working toward positive change.



Contact us at sustainabilityEMEA@tarkett.com

Note: This document represents the views and activities of Tarkett EMEA.

TARKETT GROUP

With net sales of more than €2.8 billion in 2017, Tarkett is a worldwide leader of innovative flooring and sports surface solutions. Offering a wide range of products including vinyl, linoleum, carpet, rubber, wood, laminate, synthetic turf and athletic tracks, the Group serves customers in more than 100 countries worldwide through its major brands: Tarkett, Desso, Johnsonite, Tandus Centiva, Tarkett Sports, FieldTurf and Beynon. With approximately 13,000 employees and 34 industrial sites, Tarkett sells 1.3 million square meters of flooring every day, for hospitals, schools, housing, hotels, offices, stores and sports fields. Committed to "Doing Good. Together", the Group has implemented an eco-innovation strategy based on Cradle to Cradle® principles and promotes circular economy, with the ultimate goal of contributing to people's health and wellbeing, and preserving the natural capital. www.professionales.tarkett.com

Photo: Cathy Tissot & David Mayenfish, Studio Evolution

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