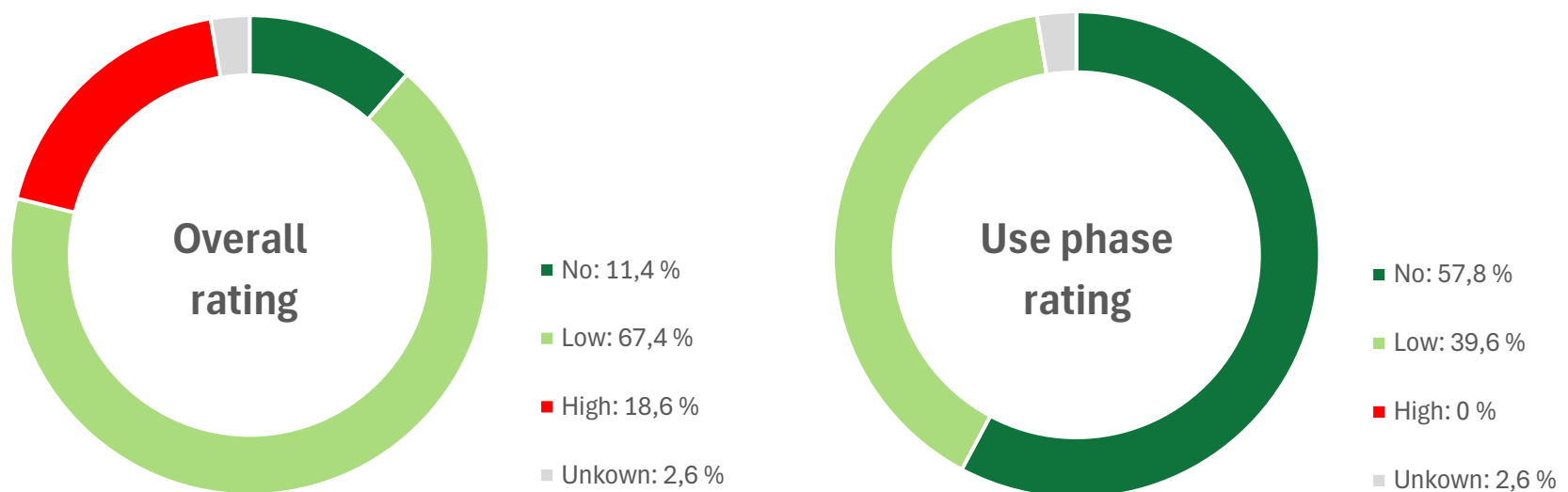


## iD Square Loose lay

Company:	TARKETT
Product specifications:	iD Square Loose lay
Issue date:	13. October 2025
Expiration date:	15. October 2027
Declaration and evaluation threshold:	At least 100 ppm of the final product
After-use scenario:	ReStart® recycling and take-back programme <sup>(a)</sup>
EPEA Registry No:	45605
MHS Version:	3.0

### Chemicals Risk Assessment: Concern level



This summary presents the average mass weighted distribution of material health ratings presented on next pages. Ratings address benefits and risks of chemical components of the product for humans and the living environment:

\* during the phase of use of the product.

\* overall while taking into account

- the last manufacturing step using raw materials leading to them in the product's composition,
- the production of raw materials in the supply chain as far as information is attainable from suppliers or from generic literature,
- the intended management scenario after use.

The benefit and risk analysis follows a qualitative and quantitative breakdown of the product's chemical composition from the chemical composition of raw materials, a reconstruction of chemical transformation pathways and an anticipation of the chemical's behaviour during the intended after-use processing. This information is combined with physical and (eco)toxicological properties of pure chemicals obtained from governmental and non-governmental scientific organisations to derive a level of concern. The MHS is making transparent at a point in time results of the company's activities for developing benefits of the product, including environmental and health benefits, with its purchasing and commercialization practices.

FUNCTION	CHEMICALS (Maximally present at $\geq 0,01\%$ )	CAS	CONTENT (average)	EPEA RATING		GS-LT GS-BM <sup>(c)</sup>	REACH
				USE PHASE	OVERALL		
PVC	Polyvinyl chloride	9002-86-2	$\geq 39,26\%$			LT-P1	✓
	Proprietary	Proprietary	$\leq 1,82\%$			N.I.	-
	<p>Transitional use of PVC is tolerated in durable applications designed with good materials and a collection and recycling program in place<sup>(b)</sup>. Vinyl chloride content is below 1 ppm in purchased products. Tarkett proposes to take back your installation residues and plans to propose to take back your products after use, thanks to the ReStart<sup>®</sup> program<sup>(a)</sup>. The PVC resin products are produced with chlorine originating from membrane-based chloralkali processes according to today best available technologies. Suppliers of the PVC resin products do not disclose the identity of polymerization auxiliaries. Mentioned amounts are estimate maxima based on scientific literature and the knowledge of the polymerization process type. <b>Check Tarkett national websites for Restart<sup>®</sup> program availability.</b></p> <p>Nanomaterials: No</p>						
Fillers	Calcium carbonate	471-34-1	34,42%			LT-UNK	✓
	Magnesite	546-93-0				LT-UNK	✓
	Quartz	14808-60-7				LT-1	✓
	Glass, oxide, chemicals	65997-17-3				LT-1	✓
	Aluminium hydroxide	21645-51-2				BM2	✓
	<p>Fillers consist of pulverized stones (calcium carbonate, dolomite and kaolin) with mean particle sizes varying between 2 and 150 <math>\mu\text{m}</math>. Different levels of concerns are related to quartz, a natural component of these stones. Especially the production of a raw material consisting of particles with a mean size of 2,4 <math>\mu\text{m}</math> is a matter of concern during its production and its handling during the flooring production. No concerns in the final product because particles are embedded in the polymer matrix.</p> <p>Nanomaterials: No</p>						
Plasticizers	1,2-Cyclohexanedi-carboxylic acid, diisononyl ester (DINCH)	166412-78-8	19,54%			LT-UNK	✓
	Dibutyl terephthalate (DBT)	1962-75-0				None	✓
	1,4-benzenedicarboxylic acid, butyl methyl ester (MBT)	52392-55-9				N.I.	✓
	Diocetyl terephthalate (DOTP)	4654-26-6				None	✓
	Bis(2-ethylhexyl) adipate (DEHA)	103-23-1				LT-P1	✓
	Tributyl O-acetylcitrate	77-90-7				LT-P1	✓
	<p>DINCH, DOA, DOTP, DBT and the proprietary plasticizer are alternatives to phthalate plasticizers partially approved for food contact applications with high migration limit reflecting a much better safety profile. With DINCH no toxicity is identifiable, especially no mutagenicity, carcinogenicity or reproductive toxicity observed in animal tests. No concern with the synthesis impurity MINCH irrespective of its amount being <math>&lt; 0.01\%</math> in the total composition. No concern with other plasticizers as well, especially no disruption of developmental pathways observed with metabolic products of DOTP.</p> <p>Nanomaterials: No</p>						

<b>Heat stabilizers</b>	Soybean oil, epoxidized	8013-07-8	1,69%			LT-P1	✓
	[carbonato(2-)]hexadecahydroxy	11097-59-9				LT-P1	✓
	Zinc neodecanoate	27253-29-8				LT-P1	✓
	Calcium neodecanoate	27253-33-4				LT-P1	✓
	Triisodecyl phosphite	25448-25-3				LT-P1	✓
	Neodecanoic acid, zinc salt, basic	84418-68-8				LT-UNK	✓
	Hexanoic acid, 2-ethyl-, zinc salt, basic	85203-81-2				LT-1	✓
	Sodium 2-ethylhexanoate	19766-89-3				LT-1	✓
	Potassium 2-ethylhexanoate	3164-85-0				LT-1	✓
	Proprietary	Proprietary				LT-P1	✓
<p>ESBO is a scavenger of hydrochloric acid that may be formed during the flooring use period and amounts to about 50% of a calcium/potassium/zinc heat stabilizing chemical system. It has a plasticizing effect in addition. Zinc, calcium and potassium are essential elements for life. The migration potential of the different components of the heat stabilization system is unknown but expected low. No concern in the finished product.</p> <p>Nanomaterials: No</p>							
<b>Reinforcement</b>	Glass, oxide, chemicals	65997-17-3	0,97%			LT-1	✓
	<p>A glass fiber veil consisting of glass fibers and binding auxiliaries is applied to increase the dimension stability of iD Square tiles. Low level of concern because glass fibers have a diameter exceeding 10 µm and a length of 12 mm.</p> <p>Nanomaterials: No</p>						
<b>Coloration agents</b>	Titanium dioxide	13463-67-7	0,23%			LT-1	✓
	<p>Potential health issue related to dust inhalation during mining/production of titanium dioxide. Other pigments present in iD Square Loose Lay are below the level that is subject to review.</p> <p>Nanomaterials: No</p>						
<b>Additives, processing aids, impurities</b>	Polyvinylacetate	9003-20-7	2,36%			LT-UNK	✓
	Urea, polymer with formaldehyde	25036-13-9				LT-UNK	✓
	Fatty acids, C16-18	67701-03-5				LT-UNK	✓
	2-(2-butoxyethoxy) ethanol	112-34-5				LT-P1	✓
	Calcium oxide	1305-78-8				LT-P1	✓
	Zinc oxide	1314-13-2				BM1	✓
	C,C'-azodi(formamide)	123-77-3				LT-P1	✓
	Ethanol	64-17-5				BM2	✓
	Sodium oxide	12401-86-4				LT-UNK	✓
	Other additives, processing aids or impurities	Proprietary				LT-UNK	✓
						LT-UNK	✓
						LT-UNK	✓
<p>Chemicals in this section consist mostly of formulation auxiliaries for coloration agents and the undefined part of the production input that flows into the products' composition. Undefined chemicals have the highest share in this section. They are a task for further attempts to resolve the chemical definition gap.</p> <p>Nanomaterials: Not verified</p>							

<b>Surface Treatment</b>	2,2-bis[[[(1-oxoallyl)oxy]methyl]-	4986-89-4	0,46%			LT-UNK	✓
	(1-methyl-1,2-	42978-66-5				LT-P1	✓
	(octahydro-4,7-methano-1H-	42594-17-2				LT-P1	✓
	Oxybis(methyl-2,1-ethanediyl)	57472-68-1				LT-P1	✓
	2-Propenoic acid, 2-hydroxyethyl	52404-33-8				None	✓
	Polynoxylin	9011-05-6				LT-P1	✓
	2,5-Furandione, polymer with	195008-47-0				None	✓
	1,3-Isobenzofurandione, polymer	297145-34-7				None	✓
	Silicon dioxide	7631-86-9				BM1	✓
	Other precursors of a polyurethane/acrylic surface treatment system	Proprietary				LT-P1	✓
						LT-UNK	✓
						LT-P1	✓
				LT-P1	✓		
<p>The surface treatment is acting as a protection in two ways: it prevents volatiles organic compounds residually contained in the product to migrate out of it<sup>(e)</sup> and it protects the flooring product from abrasion with excellent indoor air quality properties as a result. Listed chemicals are a mixture of precursors for the production of a complex polymeric structure via curing with photoinitiators. The main component is not exactly defined by CAS number but approximately as aliphatic urethane acrylic non-ionic copolymer that is free of tin organic compounds.</p> <p>Nanomaterials: No</p>							

**RESOURCE ORIGIN**





<b>Content sourced from abundant minerals</b>		43,15%	Mineral fillers and the chlorine part of PVC originate from abundant mineral resources. When they originate from the recycled content, they are counted in the next section.
<b>Recycled content</b>	- Internal post-industrial	20,03%	The recycled content originates from Tarkett's own production and from quality controlled external sources.
	- Post-installation	-	
	- Post-use source	-	
<b>Biologically renewable content</b>	- Animal	-	No chemicals with a possible animal origin are identified. ESBO has a vegetal origin.
	- Vegetal	0,76%	

EPEA's rating methodology<sup>(d)</sup> is based on the Cradle-to-Cradle approach with the European Precautionary principle. It is made in relation with a quality target, an after-use scenario and on the background of the specific supply chain materials used by the article's manufacturer. The assessment of hazard/safety properties of chemicals is made at the best of our knowledge at the date of MHS™ issue. EPEA believes the data forth herein are accurate as of the date hereof. EPEA makes no warranty with respect thereto and expressly denies all liability for reliance thereon. Such data are offered solely for your consideration, investigation, and verification.

**Dr. Jan Christoph von der Lancken**  
 Managing Director EPEA Industry

**Dr. Alain Rivière**  
 Scientific Supervisor

**Legend:**

EPEA RATINGS	REACH compliance	GS-LT / GS- BM <sup>(a)</sup>
 No concern	✓: Substance is listed neither in Annex XIV nor in Annex XVII nor as SVHC and complies with European Union Regulation EC 1907/2006 applicable to this article <b>XVII or XIV:</b> Substance listed in Annex XVII (Restriction) or Annex XIV (Authorisation) of REACH regulation applicable to this article <b>SVHC:</b> Substance of Very High Concern. Candidate for listing in Annex XIV (Authorization list) of REACH Regulation at a concentration above 0.1% -: Not applicable due to missing CAS#	<b>LT-1:</b> Chemical is found on an authoritative list of the most-toxic chemicals <b>LT-P1:</b> Chemical may be a serious hazard, but the confidence level is lower <b>LT-UNK:</b> Unknown (no data on List Translator Lists) <b>BM1:</b> Avoid: Chemical of High Concern <b>BM2:</b> Use but search for Safer Substitutes <b>BM3:</b> Use but still opportunity for improvement <b>BM4:</b> Prefer: Safer Chemical <b>BMU:</b> "Unspecified"; insufficient data <b>N.I.:</b> (No GS rating): Chemical is not listed in the source of GS and GS-LT ratings
 low concern		
 High concern. Task for material optimization		
 Risk cannot be verified. Task for knowledge development		

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- (a) ReStart® recycling and take-back programme  
[https://professionals.tarkett.com/en\\_EU/node/restart-recycling-take-back-programme-9721](https://professionals.tarkett.com/en_EU/node/restart-recycling-take-back-programme-9721)
  - (b) Charter for a responsible use of PVC and chlorine management  
<https://www.epea.com/en/news/pvc-chlorine-management>
  - (c) GreenScreen List Translator Score and GreenScreen Benchmark Score according to 3E Exchange  
<https://exchange.3eco.com/Substances/Search>
  - (d) EPEA MHS V3.0 Development Guidance  
[https://epea.com/fileadmin/user\\_upload/2.0\\_Leistungen/MHS\\_Guidance\\_document\\_V3.0\\_EPEA\\_15.09.2023.pdf](https://epea.com/fileadmin/user_upload/2.0_Leistungen/MHS_Guidance_document_V3.0_EPEA_15.09.2023.pdf)
  - (e) VOC regulation compliance, based on Eurofins report 392-2024-00296701\_Z\_FR
    - ✓ Platinum - Tarkett Indoor Air Quality V5.0 (2023)
    - ✓ A+ - French VOC regulations DEVL 1101903D and DEVL1104875A modified 2012 (DEVL 1133129A)
    - ✓ French CMR components (2009) DEVP0908633A and DEVP0910064A (April and May 2009)
    - ✓ Belgian VOC regulation C-2014/24239 (2014)
    - ✓ German AgBB (2021)
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