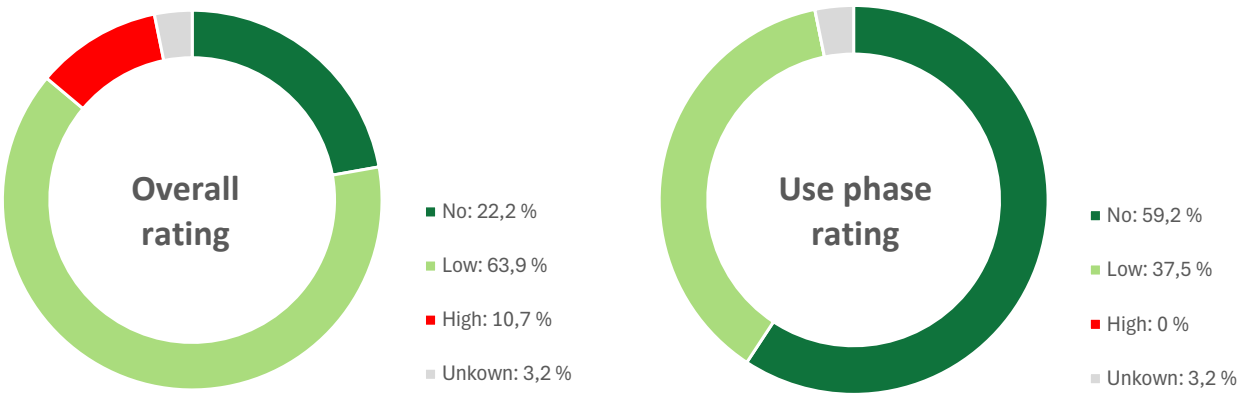
Heterogeneous polyvinyl floor covering with foam layer

Company:	**TARKETT**
Product specifications:	**TX habitat genius, TX modulaire, TX habitat, TX classic, TX excellence genius 34, TX Essential 3-4, TX Excellence 17 db, TX Excellence 19 db, TX neo life, Acczent Excellence compact +, Acczent Platinium, Tapiflex Platinium, Nordic stabil, Nordic stabil plus, Stairs, tiles 50/65, dalle 3-4**
Issue date:	**18. September 2025**
Expiration date:	**17. September 2027**
Declaration and evaluation threshold:	At least 100 ppm of the final product
After-use scenario:	ReStart® recycling and take-back programme[(a)]
EPEA Registry No:	45604
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
  a) the last manufacturing step using raw materials leading to them in the product's composition,
  b) the production of raw materials in the supply chain as far as information is attainable from suppliers or from generic literature,
  c) 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 ≥ 0,01%)	CAS	CONTENT (average)	EPEA RATING		GS-LT GS-BM[(c)]	REACH
				USE PHASE	OVERALL		
PVC	Polyvinyl chloride	9002-86-2	≥ 37,3%			LT-P1	✓
	Proprietary	Proprietary	≤ 1,27%			N.I.	-
	Transitional use of PVC is tolerated in durable applications designed with good materials and a collection and recycling program in place[(b)]. 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® program[(a)]. 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. **Check Tarkett national websites for Restart® program availability.** Nanomaterials: No						
Fillers	Calcium carbonate	471-34-1	34,34%			LT-UNK	✓
						LT-UNK	✓
	Quartz	14808-60-7				LT-1	✓
	Magnesite	546-93-0				LT-UNK	✓
	Aluminium hydroxide	21645-51-2				BM2	✓
	Glass oxide, chemicals	65997-17-3				LT-1	✓
	Other mineral filler	Proprietary				LT-UNK	✓
	Fillers consist of pulverized stones with mean particle sizes varying between 2 and 40 µm and both a primary and a recycling origin. Aluminium hydroxide acts as both a filler and a flame retardant. Minor amounts of glass oxide chemicals correspond to glass fibre veils contained in recycled flooring materials. They do not recover their original function but act also as a filling material instead. Especially the production of a calcium carbonate raw material is a matter of concern during its production and its handling during the flooring production because of particles ranging around 2 µm. No concerns in the final product because particles are embedded in the polymer matrix. Nanomaterials: No						
Plasticizers	1,2-Cyclohexanedicarbo-xylic acid, diisononyl ester (DINCH)	166412-78-8	20,24%			LT-UNK	✓
	1,2-Cyclohexanedicarboxylic acid, 1-methyl, 2-iisononyl ester (MINCH)	*Not available*				N.I.	✓
	Dibutyl terephthalate (DBT)	1962-75-0				None	✓
	1,4-benzenedicarboxylic acid, butyl methyl ester (DMT)	*52392-55-9*				N.I.	✓
	Bis(2-ethylhexyl) adipate (DOA)	103-23-1				LT-P1	✓
	Dioctyl terephthalate (DOTP)	4654-26-6				None	✓
	Tributyl O-acetylcitrate	77-90-7				LT-P1	✓
	DINCH, DOTP, DBT, DOA and the citrate derivative deivative are alternatives to phthalate plasticizers. DINCH and DOA are 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 as well with the synthesis impurity MINCH irrespective of its amount being < 0.1% in the total composition and the two terephthalate plasticizers in case of exposure. Also no concern with DOTP, DBT and DOA Nanomaterials: No						

Heat stabilizers	Soybean oil, epoxidized (ESBO)	8013-07-8	0,97%			LT-P1	✓
	[carbonato(2-)]hexadeca-hydroxybis(aluminium)hexamagnesium	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	✓
	Other component of a calcium/zinc heat stabilizing system	Proprietary				LT-P1	✓
	ESBO is a scavenger of hydrochloric acid that may be formed during the flooring use period. It has a plasticizing effect in addition. Zinc and calcium 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 also with 2-ethylhexanoate derivatives. Nanomaterials: No						
Reinforcement	Polyethylene terephthalate	25038-59-9	2,11%			LT-P1	✓
	Glass oxide, chemicals	65997-17-3				LT-1	✓
	The dimension stability of the flooring tiles is obtained with incorporation of a veil that consists either of polyethylene terephthalate or of glass fibres bound with a polymeric binder (encompassed under additives and processing aids). The size of glass fibres ranges between 8 and 13 µm. Nanomaterials: No						
Coloration agents	Titanium dioxide	13463-67-7	0,41%			LT-1	✓
	Potential health issue related to dust inhalation during mining/production of titanium dioxide. No concern in the finished product. Other coloration agents are present each at a level below the declaration limit. Nanomaterials: Not verified, yet for other pigments than titanium dioxide						

Additives, processing aids, impurities	Fatty acids, C16-18	67701-03-5	3,02%			LT-UNK	✓
	Ethanol	64-17-5				BM2	✓
	Polynoxylin	9011-05-6				LT-P1	✓
	Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	25322-68-3				LT-UNK	✓
	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, mono-C13-15-alkyl ethers, succinates	162627-31-8				None	✓
	Magnesium hydroxide	1309-42-8				BM3	✓
	Calcium oxide	1305-78-8				LT-P1	✓
	C,C'-azodi(formamide)	123-77-3				LT-P1	✓
	Aluminium oxide	1344-28-1				LT-1	✓
	Zinc oxide	1314-13-2				BM1	✓
	Silicon dioxide	7631-86-9				BM1	✓
	Silica, vitreous	60676-86-0				N.I.	✓
	Other additives, processing aids or impurities	Proprietary				None	✓
						LT-UNK	✓
						BM3	✓
						LT-UNK	✓
						LT-UNK	✓
						LT-P1	✓
						N.I.	✓
							-
	Chemicals in this section consist mostly of formulation auxiliaries for coloration agents, the undefined part of the production input that flows into the product's composition and chemicals that do not recover a function during recycling. The SVHC chemical C,C'-azodi(formamide), a blowing agent, is not present as such in the product because it decomposes to benign chemical during the blowing reaction. Undefined chemicals amount to 2/3 of chemicals listed in this section and are a task for further attempts to resolve the chemical definition gap. Nanomaterials: No for organic substances, not verified for mineral chemicals						

Surface Treatment	Polynoxylin	9011-05-6	0,32%			LT-P1	✓
	2,2-bis[[(1-oxoallyl)oxy] methyl]-1,3-propanediyl diacrylate	4986-89-4				LT-UNK	✓
	2-Propenoic acid, 2-hydroxyethyl ester, polymer with 1,1'-methylenebis[4-isocyanatocyclohexane] and 2-oxepanone	52404-33-8				None	✓
	(1-methyl-1,2-	42978-66-5				LT-P1	✓
	(octahydro-4,7-methano-1H-indenediyl)bis(methylene) diacrylate	42594-17-2				LT-P1	✓
	Oxybis(methyl-2,1-ethanediyl) diacrylate	57472-68-1				LT-P1	✓
	2-Propenoic acid, reaction products with dipentaerythritol	1384855-91-7				LT-UNK	✓
	2,5-Furandione, polymer with (chloromethyl)oxirane, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 4,4-(1-methylethylidene)bisphenol and oxirane, 2-propenoate	195008-47-0				None	✓
	1,3-Isobenzofurandione, polymer with 1,4-butanediol, (chloromethyl)oxirane, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 4,4'-(1-methylethylidene)bis[phenol] and oxirane, 2-propenoate	297145-34-7				None	✓
	1-butylpyrrolidin-2-one	3470-98-2				LT-UNK	✓
	Other additives, processing aids and impurities	Proprietary				LT-P1	✓
						LT-UNK	✓
						LT-P1	✓
						LT-UNK	✓
						LT-UNK	✓
	Mixture of precursors for the production of a complex polymeric structure via curing with photo-initiators that are themselves incorporated in the polymeric structure. two out of 3 red labeled surface treatment precursors rely on bisphenol A as a precursor, an endocrine disrupting chemical. The low level of concern during use is due to the fact that a release is not expectable of bisphenol A as such is not expected in the use phase. In contrast to this, the last red labelled chemical is an likely persistent surfactant that is is expected to maintain mobility after curing. Nanomaterials: No						

RESOURCE ORIGIN			
Content sourced from abundant minerals		48,68%	Mineral fillers and the chlorine part of PVC originate from abundant mineral resources. Mineral fillers that are coming from recycled materials are counted in the next section
Recycled content	- Internal post-industrial	22,10%	The recycled content originates from own production offsets or recovered with the Restart® program and of quality controled external sources.
	- Post-installation	-	
	- Post-use source	-	
Biologically renewable content	- Animal	-	No chemicals with a possible animal origin are identified. ESBO has a vegetal origin.
	- Vegetal	0,54%	

EPEA's rating methodology [(d)] 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.

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Legend:

EPEA RATINGS	REACH compliance	GS-LT / GS- BM[(a)]
● 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	**LT-1**: Chemical is found on an authoritative list of the most-toxic chemicals **LT-P1**: Chemical may be a serious hazard, but the confidence level is lower
● low concern	**XVII or XIV**: Substance listed in Annex XVII (Restriction) or Annex XIV (Authorisation) of REACH regulation applicable to this article	**LT-UNK**: Unknown (no data on List Translator Lists) **BM1**: Avoid: Chemical of High Concern **BM2**: Use but search for Safer Substitutes
● High concern. Task for material optimization	**SVHC**: Substance of Very High Concern. Candidate for listing in Annex XIV (Authorization list) of REACH Regulation at a concentration above 0.1%	**BM3**: Use but still opportunity for improvement **BM4**: Prefer: Safer Chemical **BMU**: "Unspecified"; insufficient data
● Risk cannot be verified. Task for knowledge development	- : Not applicable due to missing CAS#	**N.I.**: (No GS rating): Chemical is not listed in the source of GS and GS-LT ratings

(a) ReStart® recycling and take-back programme(a)
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

(e) Tarkett Indoor Air Quality Platinum (TIAQP-30-05-01-2023) and Gold (TIAQP-30_04-01-2024) certificates issued by third party Eurofins Certification Body VOC for products representative of this Tarkett product group