



Armstrong Flooring™

Quantum®

Armstrong Flooring's Quantum® is an Australian made range of homogeneous vinyl sheet especially suitable for facilities subject to high daily use. Quantum flooring requires low maintenance, is easy to install and there is no need to apply polish.

Products/Ranges:	Quantum®
Product Stages Assessed:	Material inputs, Manufacturing, in-use
Product Type:	Flooring
CSI Masterformat:	TBC
Licenced Site/s:	Braeside, VIC
Licence Number:	AWF:QT01:2022:PH
Licence Date:	19th September 2022
Valid To:	19th September 2023
Standard:	GGT International v4.0
Screening Date:	30th August 2022
PHD URL:	https://www.globalgreentag.com/get-file/12907/phd.pdf

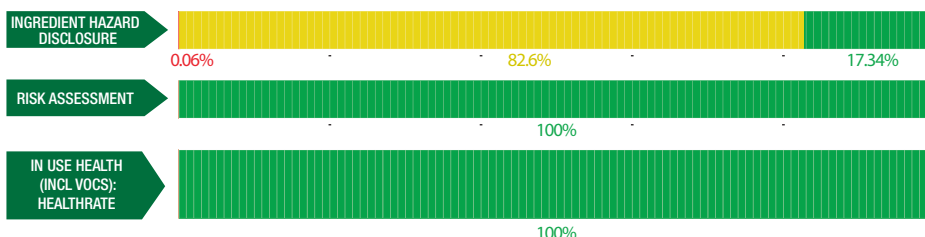


PHD Summary	Inventory Threshold:	Inventory Method:
Percentage Assessed: 100%	100ppm Product Level	Nested Materials

- GreenTag Banned List Compliant.
- GreenTag PHD recognized by WELL™ & LEED® Material Transparency & Optimization credits included below:
- Meets Green Star® 'Buildings v1.0' ~ Credit 9: Responsible Finishes
- Meets IWBI® WELL™ v1.0 as Recognized for ~ Feature 26 (Part 1); Feature 97 (Part 1); as a Compliant Technical Document (Audited) for ~ Feature 04 (Part 3), Feature 11 (Part 1) and, meets IWBI® WELL™ v2.0 as Recognized for ~ X07 (Parts 1, 3); X08 (Part 2); as a Compliant Technical Document (Audited) for ~ X01 (Part 1); X06 (Part 2); X07 (Part 2); X08 (Part 1).
- Meets USGBC LEED® v4.0 and v4.1 Rating Tool Credit, MR Credit: Building Product Disclosure and Optimisation - Material Ingredients - Option 1: Material Ingredient Reporting, Option 2: International ACP - REACH Optimisation.
- Highly unlikely worker, user, and environmental exposure to Carcinogens, Mutagens, Reproductive Toxicant or Endocrine Disruptors.

INGREDIENT HAZARD DISCLOSURE, RISK ASSESSMENT, & IN USE HEALTH, % by mass. See over for explanation.

ASSESSMENT:



Declared by:
Global GreenTag
International Pty Ltd

David Baggs
CEO & Program Director
Verified compliant with:
ISO 14024 & ISO 17065

1.0 Scope

The Global GreenTag International (GGT) Product Health Declaration (PHD) has been designed to provide an additional level of service to the green product sector in facilitating an easier understanding of both the hazard and risk associated with any certified products and is intended to indicate:

- Chemical hazards of both finished product and unique ingredients to a minimum level of 100ppm for final product throughout the product life cycle, (including any VOC or other gaseous emissions);
- An assessment of exposure or risk associated with ingredient handling, product use, and disposal in relation to established mitigation and management processes;

It is not intended to assess:

- i. substances used or created during the manufacturing process unless they remain in the final product; or
- ii. substances created after the product is delivered for end use (e.g., if the product unusually degrades, combusts or otherwise changes chemical composition).

GGT PHDs are only issued to products that have passed GGT Standards' certification requirements. The Level of Assessment (BronzeHEALTH, SilverHEALTH GoldHEALTH or PlatinumHEALTH) rating relates ONLY to GGT Standard Sustainability Assessment Criteria 3, and is declared separately to the overall Bronze, Silver Gold or Platinum Green Tag Certification Mark Tier Levels.

1.2 Preparing an PHD

GGT PhDs are prepared using Hazard Classifications from the UN Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and as an outcome of a successful Application for Certification. Assessments are undertaken by GGT Qualified Exemplar Global Lead Auditors and subsequently accepted for Certification by the GGT Program Director (also a Qualified Exemplar Global Lead Auditor) under the GGT International Standard v4.0, Personal Products Standard v1.0, and Cleaning Products Standard v1.1 and above Program Rules.

1.3 External Peer Review

Every GGT PHD is independently peer reviewed by an external Consultant Toxicologist and Member of the Australian College of Toxicology & Risk Assessment.

2.0 Declaration of Ingredients

Where a manufacturer wishes recognition under a rating program that requires transparency of ingredients such as LEED v4.0 & v4.1, WELL v1 & v2, Living Building Challenge, Estidama etc., the following information is declared from audit:

Colour	Ingredient Name
Green	Ideal- Low No concerns- ingredient safe at any level based on current known science, % of the ingredient, and relevance to use context'
Yellow	Medium to Low Hazardous Ingredient with minor level of "Issue of Concern" depending on % of the ingredient, hazard level, and relevance to use context'
Orange	Moderate Hazardous ingredient with "Issue of Concern" or "Issue of Concern Minimised" depending on % of the ingredient, hazard level, and relevance to use context'
Red	Problematic (Red): Target for Phase Hazardous ingredient with 'Red Light" or "Red Light Minimised" concern depending on % of the ingredient, hazard level, and relevance to use context'
Dark Red	Very Problematic (Dark Red): Target for Phase Very Hazardous ingredient with 'Red Light Exclusion" concern depending on % of the ingredient, hazard level, and relevance to use context'
Grey	Uncategorised Not able to be categorised due to lack of toxicity impact information.
Black	Banned Ingredients Petroleum, Parabens plus a wide range of compounds stipulated by cleaning/personal products standards.

Global GreenTag International Pty Ltd (Global GreenTag) is not a medical professional organisation. Global GreenTag does not purport to provide medical advice, and makes no warranty, representation, or guarantee regarding the declaration that it provides in relation to any allergies, chemical sensitivities or any other medical condition, nor does Global GreenTag assume any liability whatsoever arising out of the application or use of any product or piece of equipment that has been chemically assessed by Global GreenTag.

The chemical assessments carried out provide transparent information peer reviewed by a consultant toxicologist regarding the chemical make-up and ingredients of certain materials and products, but such assessments are not to be taken as any form of medical assessment or health advice and are not targeted towards providing specific solutions to allergenic conditions or any other type of medical concerns.

Users must carry out their own investigations if they are concerned about specific medical conditions and the impact of certain products or ingredients in relation to specific medical concerns.

Global GreenTag takes no responsibility and is not liable in any way with respect to any medical or health issues arising from a person's use of materials or products that have been chemically assessed by Global GreenTag. Global GreenTag shall not be liable for any direct, indirect, punitive, incidental, special or consequential damages to property or life whatsoever, arising out of or connected with the use or misuse of any materials or products that have been assessed by Global GreenTag.

Ingredient Name	CAS Number OR Function	Proportion in finished product	GHS, IARC & Endocrine Category	REACH Compliance	Ingredient Assessment	Whole Of Life Assessment	In Use Health Assessment	Comment
Polyvinyl Chloride (PVC)								
PVC(residue vcm <1ppm according to ASTM D3749)	9002-86-2	40-45%	H319(Eye Irrit. 2) H315(Skin Irrit. 2) H335(STOT SE 3)	OK				Recyc ontent: None Nanomaterials: No
DiOctyl Adipate (DOA)	103-23-1	1-5%	None	OK				Recycled Content: None Nanomaterials: No
Epoxidized Soybean Oil	8013-07-8	<1%	None	OK				Recycled Content: None Nanomaterials: No
Calcium carbonate	1317-65-3	40-45%	H315(Skin Irrit. 2)	OK				Recycled Content: None Nanomaterials: No
DOTP	6422-86-2	10-15%	None	OK				Recycled Content: None Nanomaterials: No
Zinc distearate	557-05-1	<1%	None	OK				Recycled Content: None Nanomaterials: No
Calcium stearate	1592-23-0	<1%	None	OK				Recycled Content: None Nanomaterials: No
2,2,2',2'-tetrakis(hydroxymethyl)-3,3'-oxydipropan-1-ol	126-58-9	<1%	None	OK				Recycled Content: None Nanomaterials: No
Pentaerythritol	115-77-5	<1%	None	OK				Recycled Content: None Nanomaterials: No
Octadecyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl) propionate	2082-79-3	<1%	None	OK				Recycled Content: None Nanomaterials: No
[carbonato(2-)]hexadecahydroxybis(aluminium)hexamagnesium	11097-59-9	<1%	None	OK				Recycled Content: None Nanomaterials: No
Zeolites	1318-02-1	<1%	None	OK				Recycled Content: None Nanomaterials: No
1,3-diphenylpropane-1,3-dione	120-46-7	<1%	None	OK				This substance as a raw ingredient can cause serious eye and skin irritation if workers exposed. The factory's OH&S conditions and GGTI safety review indicate exposure is unlikely. Once combined ingredients form an inert polymer matrix. What's more, end-users are only exposed to the upper wear layer which does not contain this ingredient and so are not at risk of exposure. Recycled Content: None Nanomaterials: No
Distillates (petroleum), hydrotreated middle	8002-74-2	<1%	None	OK				Recycled Content: None Nanomaterials: No
1-Propene, polymer with ethene	68891-61-2	<1%	None	OK				Recycled Content: None Nanomaterials: No
Limestone	1317-65-3	<1%	None	OK				Recycled Content: None Nanomaterials: No

2-ethylhexyl diphenyl phosphite	15647-08-2	<1%	H315(skin irrit. 2) H319(eye irrit. 2)	OK				This substance as a raw ingredient can cause serious eye and skin irritation if workers exposed. The factory's OH&S conditions and GGTI safety review indicate exposure is unlikely. Once combined ingredients form an inert polymer matrix. What's more, end-users are only exposed to the upper wear layer which does not contain this ingredient and so are not at risk of exposure. Recycled Content: None Nanomaterials: No.
Coating materials								
2-ethyl-2-[[3-(2-methylaziridin-1-yl)propionyl methyl]propane-1,3-di-yl bis(2-methylaziridine-1-propionate)	642465-57-2	<0.1%	H302(acute tox. 4) H315(skin irrit. 2) H317(skin sens 1) H318(eye dam 1) H373(STOT RE 2)	OK				This substance as a raw ingredient can cause serious eye and skin irritation if workers exposed. The factory's OH&S conditions and GGTI safety review indicate exposure is unlikely. The substance reacts during the curing of the varnish and the finished product is highly unlikely to contain the unreacted substance at extremely low levels. Recycled Content: None Nanomaterials: No
Silica precipitate, crystalline free	112926-00-8	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Polypropylene	9003-07-0	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Levelling aid	Coating	<0.1%	H315(skin irrit. 2) H318(Eye dam. 1)	OK				This substance as a raw ingredient can cause serious eye and skin irritation if workers exposed. The factory's OH&S conditions and GGTI safety review indicate exposure is unlikely. The substance reacts during the curing of the varnish and the finished product is highly unlikely to contain the unreacted substance at extremely low levels. Recycled Content: None Nanomaterials: No
Water	7732-18-5	<0.01%	None	OK				Recycled Content: None Nanomaterials: No
Aqueous polyurethane resin	Coating	<0.1%	H318(Eye dam. 1) H360(Rep tox 1B) H227(flam liq 1B)	OK				This substance as a raw ingredient can cause serious eye irritation if workers exposed. The factory's OH&S conditions and GGTI safety review indicate exposure is unlikely. The substance reacts during the curing of the varnish and the finished product is highly unlikely to contain the unreacted substance at extremely low levels. Recycled Content: None Nanomaterials: No
Dipropylene Glycol Mono Methyl Ether	34590-94-8	<0.1%	H227(flam liq 1B)	OK				Recycled Content: None Nanomaterials: No
Pigments								
Cobalt aluminate pigment cobalt aluminate blue, spinet	1345-16-0	<0.1%	H319(Eye Irrit. 2) H315(Skin Irrit. 2) H335(STOT SE 3)	OK				This substance as a raw ingredient can cause serious eye and skin irritation if workers exposed. The factory's OH&S conditions and GGTI safety review indicate exposure is unlikely. The substance reacts during the curing of the varnish and the finished product is highly unlikely to contain the unreacted substance at extremely low levels. Recycled Content: None Nanomaterials: No

Copper phthalocyanine	147-14-8	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Pigment Red 176	12225-06-8	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Pigment Green 7	1328-53-6	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Pigment violet 19	1047-16-1	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Pigment yellow 180	77804-81-0	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Ferric oxide	1309-37-1	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Red iron oxide	1332-37-2	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Titanium dioxide	13463-67-7	<0.1%	H351(Carc. 2)	OK				Titanium dioxide can be harmful when it is inhaled, and it is classified as possibly carcinogenic to humans. However, as the substance is embedded in the product, the hazards will not be present in the final product. Therefore, it is not expected to cause harm to the users. Recycled Content: None Nanomaterials: No
Carbon black	1333-86-4	<0.1%	H351(Carc. 2)	OK				Carbon black can be harmful when it is inhaled, and it is classified as possibly carcinogenic to humans. However, as the substance is embedded in the product, the hazards will not be present in the final product. Therefore, it is not expected to cause harm to the users. Recycled Content: None Nanomaterials: No
Black 316	Pigment	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Brown 610	Pigment	<0.1%	None	OK				Recycled Content: None Nanomaterials: No
Pigment red 101	1309-37-1	<0.1%	H227(flam liq 1B)	OK				Recycled Content: None Nanomaterials: No
Pigment black 11	1317-61-9	<0.1%	H227(flam liq 1B)	OK				Recycled Content: None Nanomaterials: No
Pigment yellow 42	51274-00-1	<0.1%	H227(flam liq 1B)	OK				Recycled Content: None Nanomaterials: No

Comments:

VOC emissions: TVOC emission rate is 0.027mg/m²/hr (within the benchmark limit less than 0.5mg/m²/hr) use test method ASTM D5116-17 "Standard Guide for Small-Scale" Environmental Chamber Determinations of Organic Emissions from Indoor Material/Products". Tested by FORAY Laboratories (NATA Accreditation 1231) in May 2021.

Formaldehyde emissions: formaldehyde emission rate is less than 0.022mg/m²/hr (within the benchmark limit less than 0.1mg/m²/hr) use test method ASTM D5116-17. Tested by FORAY Laboratories (NATA Accreditation 1231) in May 2021.