GLOBAL GREEN TAG INTERNATIONAL PTY LTD

PHD™
Product Health Declaration

Global GreenTag CertTM Certified
PLATINUM HEALTH
HealthRate™

James Hardie New Zealand Ltd

Villaboard™ Lining, Hardie™ Groove Lining

Villaboard™ Lining is a heavy-duty wall lining compared to plasterboard; resistant to damage from moisture, it holds its form and structural integrity. It is ideal for use in bathrooms and wet areas.
Hardie™ Groove Lining is a 7.5mm thick, durable fibre cement Vertical Joint sheet panel that gives the look of tongue and groove timber with the durability of fibre cement. This product is used for Internal wall and ceiling lining.

Products/Ranges:	Villaboard™ Lining, Hardie™ Groove Lining
Product Stages Assessed:	Manufacturing + In-Use
Product Type:	Fiber Cement Wall Panel
CSI Masterformat:	07 42 51
Licenced Site/s:	Rosehill (NSW) & Carole Park (QLD), Australia
Licence Number:	JHN:JH01:2024:PH
Licence Date:	19th February 2024
Valid To:	19th February 2027
Standard:	GGT International v4.0
Screening Date:	19th February 2024
PHD URL:	https://www.globalgreentag.com/certificate/2571/

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 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 5); Feature 11 (Part 1); Feature 25 (Part 2, 3) , 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); X05 (Part 2); X06 (Part 2); X07 (Part 2); X08 (Part 1).
- Meets USGBC LEED ® v4.0 and v4.1 Rating Tool Credit as Recognized for MR Credit: Building Product Disclosure and Optimisation - Material Ingredients - Option 1: Material Ingredient Reporting, Option 2: International ACP - REACH Optimisation.
- Independent third party assessment for worker, user, and environmental exposure to any 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

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 risks 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) of a PHD rating relates ONLY to a Human Health Toxicity Assessment and is declared separately and not equivalent to the overall Bronze, Silver Gold or Platinum Green Tag Certification Mark Tier Levels of LCARate.

1.2 Preparing a PHD

GGT PHDs are prepared in the format of a transparency document which utilizes Hazard Classifications from the UN Globally Harmonised System of Classification and Labelling of Chemicals (GHS). Hazard Classifications are then risk assessed with a focus on the In Use stage for an outcome of 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 International Standard v4.0/4.1, Personal Products Standard v1.0/1.1, or Cleaning Products Standard v1.1/1.2 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 Australasian 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 ® v1.0 & v2.0, Green Star ®, the following information is declared from the audit:

Colour	Ingredient Hazard Disclosure
Green	Level 4 The hazard level of this ingredient indicates that the ingredient has no toxic hazard statements with no identified health effects.
Yellow	Level 3 The hazard level of this ingredient indicates that the ingredient is mildly toxic and/or has short/medium term reversible health effects.
Orange	Level 2 The hazard level of this ingredient indicates that the ingredient is moderately toxic and/or with a moderate health effects.
Red	Level 1 The hazard level of this ingredient indicates that the ingredient is highly toxic with a potential for severe health effects.
Black	Level 0 The hazard level of this ingredient indicates that the ingredient is highly toxic with a potential for severe health effects and is banned from being detectable above trace amounts in the final product.
Grey	Grey Chemical Not able to be categorised due to lack of toxicity impact information.
Colour	**Risk Assessment & In Use Health Assessment Outcome**
Green	No Concerns The risk assessment outcomes for the hazard level and percentage of ingredient used in the product after risk assessment is considered highly unlikely and therefore without concerns.
Yellow	Human Health Comment The risk assessment outcome for the hazard level and percentage of ingredient used in the product is after risk assessment considered low with an unlikely potential risk.
Orange	Issue of Concern or Issue of Concern Minimised The risk assessment outcome for the hazard level and percentage of ingredient used in the product is after risk assessment considered low to high with a higher than unlikely potential for risk.
Red	Red Light Comment or Red Light Comment Minimised The risk assessment outcome for the hazard level and percentage of ingredient used in the product is after risk assessment considered low to extremely high with a moderate potential for risk.
Dark Red	Red Light Exclusion The risk assessment outcome for the hazard level and percentage of ingredient used in the product is after risk assessment considered medium to extremely high with a likely potential for risk.
Grey	Grey Chemical Not able to be categorised due to lack of toxicity impact information.
Black	Banned Ingredients Level 0 Hazard Level categorised chemicals such as Substances of Very High Concern in the International Standard v4.0/v4.1 and/or Petroleum, Parabens plus a wide range of additional compounds stipulated by the Personal Products Standard v1.0/1.1 and Cleaning Products Standard v1.1/1.2

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 Hazard Disclosure	Risk Assess-ment	In Use Health Assess-ment	Comment
Cement								
CALCIUM OXIDE	1305-78-8	0.01-1%	H318, H315, H335	OK				The substance can cause serious eye damage, skin irritation, and respiratory irritation. This substance is cured in the final product and does not pose any signifi-cant risks to the user The Fibre cement products are not con-sidered hazardous in their final form but the very fine dust generated when using high speed tools (e.g. circular saws, drills, grinders) could presents a hazard. James Hardie has procedure in place and sds to guide user on how to work safely with their product During the manufacturing stage, the risk of exposure is low. Supplier has Work Health & Safety policy in place and AS/NZS 4801:2001 certified. James Hardie has OHS and Environmental Policy in place Recycled Content: None Nanomaterials: Unknown
QUARTZ (CRYSTALLINE SILICA)	14808-60-7	0.01-1%	IARC 1	OK				Respirable crystalline silica dust is carcinogenic to humans and classified as IARC Group 1. This substance is cured in the final product and does not pose any signifi-cant risks to the user The Fibre cement products are not con-sidered hazardous in their final form but the very fine dust generated when using high speed tools (e.g. circular saws, drills, grinders) could presents a hazard. James Hardie has procedure in place and sds to guide user on how to work safely with their product During the manufacturing stage, the risk of exposure is low. Supplier has Work Health & Safety policy in place and AS/NZS 4801:2001 certified. James Hardie has OHS and Environmental Policy in place Recycled Content: None Nanomaterials: Unknown
PORTLAND CEMENT	65997-15-1	15-30%	H315, H317, H318, H335	OK				The substance can cause serious eye damage, skin irritation, and respiratory irritation. This substance is cured in the final product and does not pose any signifi-cant risks to the user The Fibre cement products are not con-sidered hazardous in their final form but the very fine dust generated when using high speed tools (e.g. circular saws, drills, grinders) could presents a hazard. James Hardie has procedure in place and sds to guide user on how to work safely with their product. During the manufacturing stage, the risk of exposure is low. Supplier has Work Health & Safety policy in place and AS/NZS 4801:2001 certified. James Hardie has OHS and Environmental Policy in place Recycled Content: None Nanomaterials: Unknown
FLY ASH	68131-74-8	1-5%	None	OK				No Hazard Statement Recycled Content: None Nanomaterials: Unknown

Ingredient Name	CAS Number OR Function	Proportion in finished product	GHS, IARC & Endocrine Category	REACH Compliance	Ingredient Hazard Disclosure	Risk Assess-ment	In Use Health Assess-ment	Comment
GROUND BLAST FUR-NACE SLAG	65996-69-2	1-5%	None	OK				No Hazard Statement Recycled Content: None Nanomaterials: Unknown
LIMESTONE (CALCIUM CARBONATE)	1317-65-3	1-5%	H315, H319	OK				The substance can cause serious eye and skin irritation. This substance is cured in the final product and does not pose any signifi-cant risks to the user The Fibre cement products are not con-sidered hazardous in their final form but the very fine dust generated when using high speed tools (e.g. circular saws, drills, grinders) could presents a hazard. James Hardie has procedure in place and sds to guide user on how to work safely with their product. During the manufacturing stage, the risk of exposure is low. Supplier has Work Health & Safety policy in place and AS/NZS 4801:2001 certified. James Hardie has OHS and Environmental Policy in place Recycled Content: None Nanomaterials: Unknown
GYPSUM	13397-24-5	1-5%	None	OK				No Hazard Statement Recycled Content: None Nanomaterials: Unknown
MAGNESIUM OXIDE	1309-48-4	0.01-1%	None	OK				No Hazard Statement Recycled Content: None Nanomaterials: Unknown
Silica								
Crystalline Silica (Quartz)	14808-60-7	50-60%	IARC 1	OK				Respirable crystalline silica dust is car-cinogenic to humans and is classified as IARC Group 1. Fibre cement products are not con-sidered hazardous in their final form, but the very fine dust generated when using high-speed tools (e.g., circular saws, drills, grinders) could present a hazard. James Hardie has procedures in place and SDS to guide users on how to work safely with their product. During the manufacturing stage, the risk of exposure is low. James Hardie has OHS and Environmental Policy in place. Recycled Content: None Nanomaterials: Unknown
Pulp								
Cellulose Pulp (FSC certified)	65996-61-4	5-15%	None	OK				No Hazard Statement. The Pulp is FSC certified. Recycled Content: None Nanomaterials: Unknown
Cellulose (FSC Certified)	9004-34-6	5-15%	None	OK				No Hazard Statement. The Pulp is FSC certified. Recycled Content: None Nanomaterials: Unknown
Hemi cellulose	9034-32-6	1-5%	None	OK				No Hazard Statement. The Pulp is FSC certified. Recycled Content: None Nanomaterials: Unknown

Ingredient Name	CAS Number OR Function	Proportion in finished product	GHS, IARC & Endocrine Category	REACH Compliance	Ingredient Hazard Disclosure	Risk Assess-ment	In Use Health Assess-ment	Comment
Lignin	9005-53-2	0.01-1%	None	OK				No Hazard Statement. The Pulp is FSC certified. Recycled Content: None Nanomaterials: Unknown
Water	7732-18-5	1-5%	None	OK				No Hazard Statement. The Pulp is FSC certified. Recycled Content: None Nanomaterials: Unknown
Additive #1 (AH3)								
Aluminium Hydroxide	21645-51-2	1-5%	H319, H335, H315	OK				The substance can cause eye, skin, and respiratory irritation. This substance is cured in the final product and does not pose any signifi-cant risks to the user The Fibre cement products are not con-sidered hazardous in their final form but the very fine dust generated when using high speed tools (e.g. circular saws, drills, grinders) could presents a hazard. James Hardie has procedure in place and sds to guide user on how to work safely with their product. During the manufacturing stage, the risk of exposure is low. James Hardie has OHS and Environmental Policy in place Recycled Content: None Nanomaterials: Unknown
Arcylic Resin								
Proprietary	Coatings	0.01-1%	None	OK				No Hazard Statement declared Recycled Content: None Nanomaterials: Unknown

Notes:

H227: Combustible liquid
H302: Harmful if swallowed
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H318: Causes serious eye damage
H319: Causes serious eye irritation
H335: May cause respiratory irritation
H400: Very toxic to aquatic life
IARC1: Carcinogenic to human

Test Report:

Villaboard and Hardiegroove has been tested for their VOC and Formaldehyde Emission by CETEC based on ASTM D5116-2017 (Standard Guide for Small-Scale Environmental Chamber Determinations of Organic Emissions from Indoor Material/Products)

The product meets below specification
- Green Building Council of Australia
- Green Star – Design & As Built V1.3-13.2
- Green Star Interiors V1.3-12.2

Test Result:
Total Volatile Organic Compound Emission Rate: 0.025 mg/m2/hr
Formaldehyde Emission Rate: 0.006 mg/m2/hr