

FOERSTAR® TECHNICAL SPECIFICATION · 3D TAMO FENCING

WPC 3D TAMO FENCING 120X20 MM · DARK GREY



WEIGHT PER METER 1.95 KG+-5% WEIGHT PER SQM 16.25 KG+-5%

DIMENSION 120 MM +-1 MM 20MM +-1 MM

WALL THICKNESS +5.0 MM

LOADING TEST WITH GAP 35CM 310 KG+-10%

FLEXURE STRENGTH 38 MPA

WPC 3D TAMO FENCING 120X20 MM · DARK BROWN



WEIGHT PER METER 1.95 KG+-5% WEIGHT PER SQM 16.25 KG+-5%

DIMENSION 120 MM +-1 MM 20MM +-1 MM

WALL THICKNESS +5.0 MM

LOADING TEST WITH GAP 35CM 310 KG+-10%

FLEXURE STRENGTH 38 MPA

WPC 3D TAMO FENCING 120X20 MM · LIGHT GREY



WEIGHT PER METER 1.95 KG+-5% WEIGHT PER SQM 16.25 KG+-5%

DIMENSION 120 MM +-1 MM 20MM +-1 MM

WALL THICKNESS +5.0 MM

LOADING TEST WITH GAP 35CM 310 KG+-10%

FLEXURE STRENGTH 38 MPA

WPC 3D TAMO FENCING 120X20 MM · TEAK



WEIGHT PER METER 1.95 KG+-5% WEIGHT PER SQM 16.25 KG+-5%

DIMENSION 120 MM +-1 MM 20MM +-1 MM

WALL THICKNESS +5.0 MM

LOADING TEST WITH GAP 35CM 310 KG+-10%

FLEXURE STRENGTH 38 MPA

WPC 3D TAMO FENCING 120X20 MM · LIGHT BROWN



WEIGHT PER METER 1.95 KG+-5%4 WEIGHT PER SQN 16.25 KG+ 5% DIMENSION 120 MM +- 16

WALL THICKNESS +5.0 MM

LOADING TEST WITH GAP 35CM 310 KG+-10%

FLEXURE STRENGTH 38 MPA





FOERSTAR®



FORESTAR® WPC FENCING 5-Year Limited Warranty

This warranty covers FORESTAR® WPC Fencing products for a period of five (5) years from date of the delivery.

FORESTAR, ("Warrantor") warrants all the **fencing will not check, splinter, delaminate, rot, or suffer structural damage from fungal decay** when used in conjunction with an above ground application in a residential structure, under normal residential use and is installed and maintained according to manufacturer's guidelines.

Purchaser's sole remedy for any claim whatsoever arising out of the purchase, use, storage or possession of FORESTAR® products (whether such claim arises is contract, warranty, tort, strict liability or otherwise), including without limitation any claim that FORESTAR® products failed to perform as warranted above, shall be replaced with new FORESTAR® product in an amount equal to the volume of defective material as listed on the prorated warranty schedule. Replacement material will be provided that is as close as possible in color, design and quality to the original installation, but we do not guarantee an **exact match** as colors and designs may change. Warrantor may elect to refund the percentage of the original purchase price listed on the Prorated Warranty Schedule in lieu of replacing the product.

To obtain replacement, the original owner should send this **warranty certificate**, **copy of original invoice** and **photos of the issue** to mail box.

Warrantor shall not be liable for installation, removal or <u>reinstallation</u> costs or for any indirect, punitive, exemplary or consequential damages of any kind. FORESTAR does not warrant against and is not responsible for, and no implied warranty shall be deemed to cover, any condition attributable to: (1) improper installation of FORESTAR products and/or

failure to abide by FORESTAR's installation guidelines, including but not limited to improper gapping; (2) use of FORESTAR products beyond normal residential use, or in an application not recommended by FORESTAR's guidelines and local building codes; (3) movement, distortion, collapse or settling of the ground or the supporting structure on which FORESTAR® products are installed; (4) any act of God (such as flooding, hurricane, earthquake, lightning, etc.); (5) environmental condition such as air pollution, mold, mildew, etc.; (6) provide from the foreign substances such as dirt, grease, oil, harsh chemicals found in cleaners or normal weathering defined a natural efflorescence, exposure to sunlight, weather and atmospheric conditions which will cause a colored surface to gradually fade, flake, chalk, or accumulate dirt or stains); (7) variations or changes in the foreign substances; (8) improper handling, storage, abuse or neglect of FORESTAR products and tear; or (10) any fasteners not supplied or approved by FORESTAR®.







Certificate of Registration

This is to certify that

Xuancheng Fumeida New Materials Co.,LTD.

宣城福美达新材料有限公司

"the certified site" has been certified in accordance with the requirements of the Forest Stewardship Council® A.C. using the FSC® Chain of Custody standards* and that Xuancheng Fumeida New Materials Co.,LTD. of

Site Address: NO. 5 MEIZIGANG ROAD, XUANZHOU INDUSTRIAL PARK, Xuancheng, Anhui Province, 242000, CHINA

Registered Address: Xuanzhou Industrial Park New District, Xuancheng City, Anhui Province, CHINA

is hereby licensed to use the FSC Logo on and sell as FSC certified all products listed on the attached FSC product schedule as FSC Mix;FSC 100%;FSC Recycled

Certificate Registration Code:

Licence Code:

Issued By:

Issue Date: Valid until the Renewal Date:

Signed on behalf of Soil Association Certification SA-COC-004795

Issue Number 2.0

FSC-C126583

Soil Association Certification Limited Spear House, 51 Victoria Street Bristol, BS1 6AD United Kingdom

6 August 2020 5 August 2025

Kevin Jones, Head of Forestry

This certificate is based on an audit by BCC. INC (CNCA-R-2002-016 granted by CNCA) and a certification decision by Soil Association Certification.

 $CA-COC-006g-17\ Nov\ 2018\ @\ Prepared\ by\ Soil\ Association\ Certification\ Ltd.\ FSC\ Licence\ Code\ FSC^{\circledast}\ A000525$ *This certificate is only valid for sale of FSC products when accompanied by a current product schedule. Validity of this certificate shall also be $verified \ by \ checking \ the \ FSC \ database: info. fsc. org \ or \ by \ contacting \ Soil \ Association \ Certification: for estry @soil association. org \ This \ Certificate \ is \ Association \ Certification: for estry @soil association. Org \ This \ Certificate \ is \ Association \ Certification: for estry @soil association. Org \ This \ Certificate \ is \ Certif$ the property of Soil Association Certification Ltd and all copies or reproductions of the certificate shall be destroyed or returned to the Soil Association Certification Ltd immediately, on request.

A description of the products, sites or services that are included in the scope of the certificate may be obtained from Soil Association

This certificate itself does not constitute evidence that a particular product supplied by the certificate holder is FSC certified (or FSC controlled wood). Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on invoices and shipping documents.



Certificate of Management System Certification This is to certify the quality management system of

ANHUI FUMEIDA NEW MATERIAL TECHNOLOGY CO.,

Unified Social Credit Code:91341802672610346Q

REGISTRATION ADDRESS: NEW AREA, XUANZHOU INDUSTRIAL ZONE, XUANCHENG CITY, ANHUI PROVINCE

MANAGEMENT/PRODUCTION ADDRESS: NO. 5, MEIZIGANG ROAD, HIGH-TECH INDUSTRIAL DEVELOPMENT ZONE, XUANCHENG CITY, ANHUI PROVINCE

> Is in conformity with GB/T 19001-2016 / ISO 9001:2015

This certificate covers the following area

PRODUCTION OF WOOD-PLASTIC FLOORING

Initial Certification Date: SEP.23,2014

Last Cycle Deadline:SEP.20,2023

Issue Date: From SEP.20,2023

Valid Until: SEP.20,2026

Certificate No.: U919123Q31436R3M







Certified client shall receive at least one surveillance audit every year within the validity period, the certificate shall only be valid when used in conjunction with the Notice Letter of Annual Surveillance Certification Decision. Note: The management system certification audit report and surveillance conclusion notice can obtain from the HXQC Certified Clients Relationship Management System (website: vip.hxqc.cn)

Information on this certificate could be verified on the official website of Certification and Accreditation Administration of the People's Republic of China (www.cnca.gov.cn) and www.hxqc.cn



Beijing Daluhangxing Quality Certification Center Co., Ltd. Address: No. Jia 12, Yuquan road, Haidian district, Beijing, P.R. China



Certificate of Management System Certification This is to certify the environmental management system of

ANHUI FUMEIDA NEW MATERIAL TECHNOLOGY CO.,

Unified Social Credit Code:91341802672610346Q

REGISTRATION ADDRESS: NEW AREA, XUANZHOU INDUSTRIAL ZONE, XUANCHENG CITY, ANHUI PROVINCE

MANAGEMENT/PRODUCTION ADDRESS: NO. 5, MEIZIGANG ROAD, HIGH-TECH INDUSTRIAL DEVELOPMENT ZONE, XUANCHENG CITY, ANHUI PROVINCE

Is in conformity with

GB/T 24001-2016 / ISO 14001:2015

This certificate covers the following area

PRODUCTION OF WOOD-PLASTIC FLOORING

Initial Certification Date: SEP.23,2014

Last Cycle Deadline:SEP.20,2023

Issue Date: From SEP.20,2023

Valid Until: SEP.20,2026

Certificate No.: U919123E30758R3M









Certified client shall receive at least one surveillance audit every year within the validity period, the certificate shall only be valid when used in conjunction with the Notice Letter of Annual Surveillance Certification Decision. Note: The management system certification audit report and surveillance conclusion notice can obtain from the HXQC Certified Clients Relationship Management System (website: vip.hxqc.cn)

Information on this certificate could be verified on the official website of Certification and Accreditation Administration of the People's Republic of China (www.cnca.gov.cn) and www.hxqc.cn



Beijing Daluhangxing Quality Certification Center Co., Ltd. Address: No. Jia 12, Yuquan road, Haidian district, Beijing, P.R. China



Certificate of

Management System Certification This is to certify the occupational health and safety management system of

ANHUI FUMEIDA NEW MATERIAL TECHNOLOGY CO.,

Unified Social Credit Code:91341802672610346Q

REGISTRATION ADDRESS: NEW AREA, XUANZHOU INDUSTRIAL ZONE, XUANCHENG CITY, ANHUI PROVINCE

MANAGEMENT/PRODUCTION ADDRESS: NO. 5, MEIZIGANG ROAD, HIGH-TECH INDUSTRIAL DEVELOPMENT ZONE, XUANCHENG CITY, ANHUI PROVINCE

Is in conformity with

GB/T 45001-2020 / ISO 45001:2018

This certificate covers the following area

PRODUCTION OF WOOD-PLASTIC FLOORING

Initial Certification Date: SEP.21,2020

Last Cycle Deadline:SEP.20,2023

Issue Date: From SEP.20,2023

Valid Until: SEP.20,2026

Certificate No.: U919123S30681R1M







Certified client shall receive at least one surveillance audit every year within the validity period, the certificate shall only be valid when used in conjunction with the Notice Letter of Annual Surveillance Certification Decision. Note: The management system certification audit report and surveillance conclusion notice can obtain from the HXQC Certified Clients Relationship Management System (website: vip.hxqc.cn)

Information on this certificate could be verified on the official website of Certification and Accreditation Administration of the People's Republic of China (www.cnca.gov.cn) and www.hxqc.cn



Beijing Daluhangxing Quality Certification Center Co., Ltd. Address: No. Jia 12, Yuquan road, Haidian district, Beijing, P.R. China





ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

WOOD PLASTIC COMPOSITE (WPC) PRODUCT **XUANCHENG FUMEIDA NEW MATERIALS CO., LTD**



registration and publication at www.environdec.com



Environmental Product Declaration created with One Click LCA





GENERAL INFORMATION

MANUFACTURER INFORMATION

Manufacturer	Xuancheng Fumeida New Materials Co., LTD
Address	No.5, Meizigang Road, North District Industrial Park, xuancheng City, Anhui, China
Contact details	Huan Chen, 2961242413@qq.com
Website	www.china-wpc.com

PRODUCT IDENTIFICATION

Product name	Wood plastic composite (WPC) product								
Additional label(s)	N/A								
Product number / reference	None								
Place(s) of production	China								
CPC code	36910 Floor coverings of plastics, in rolls or in the form of tiles; wall or ceiling coverings of plastics								



EPD INFORMATION

The EPD owner has the sole ownership, liability, and responsibility for the EPD. Construction products EPDs may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

EPD program operator	The International EPD System
EPD standards	This EPD is in accordance with EN 15804:2012 +A2:2019/AC:2021 and ISO 14025:2010 standards.
Product category rules	The CEN standard EN 15804 serves as the core PCR. In addition, Int'l EPD System PCR 2019:14 Construction products, version 1.2.5 (01.11.2022) is used.
EPD author	Shuting Fan, Intertek
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☑ External verification
Verification date	2023-06-20
EPD verifier	Elisabet Amat, GREENIZE
EPD number	S-P-06047
ECO Platform nr.	-
Publishing date	2023-06-28
EPD valid until	2028-06-20





PRODUCT INFORMATION

PRODUCT DESCRIPTION

Wood Plastic Composites (WPC) refers to a new type of composite material made from polyethylene (PE/HDPE) instead of conventional resin adhesives, mixed with a certain proportion of wood powder , and other additives, and then produced through plastic processing processes such as extrusion, moulding, and injection moulding.(30%PE/HDPE +60%WOOD POWDER+10%ADDITIVES)

PRODUCT APPLICATION

WPC products mainly focus on outdoor usage: such as WPC DECKING/WPC FENCING/WPC CLADDING/WPC RAILING/WPC PLANTER/WPC GARDEN SHEDS

PHYSICAL PROPERTIES

WPC DECKING: 140*23mm
WPC FENCING:1800X1800mm

WPC CLADDING:147.5X25X2900mm

PRODUCT STANDARDS

GB/T 24508-2020, LY/T 3274-2021, ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, GB/T 29490-2013

TECHNICAL SPECIFICATIONS OF THE PRODUCT

Testing items	Classic wpc products	Deep embossed products	Co-extrusion products
Tensile Strength	18.8 MPA	23.6 MPA	30.2MPA
Flexural propert ies	Max Load : 3898 N	Max Load : 4706N	Max Load : 4075 N
Boiling test	Water absorption 2.2%	Water absorption 1.47%	Water absorption 1.3%
Linear thermal expansion coeff icient	4.5x10 ⁻⁵ /K	4.2x10 ⁻⁵ /K	3.5 x10 ⁻⁵ /K
Water Absorpti on	5.3%	3.6%	1.3 %
Average density	1.35 (g/cm³)	1.35 (g/cm³)	1.27 (g/cm³)
Moisture content	≤0.1%	≤0.1%	≤0.1%
Reaction to fire class	Class D	Class D	Class D

ADDITIONAL TECHNICAL INFORMATION

Further information can be found at www.china-wpc.com.



Environmental Product Declaration created with One Click LCA

Wood-polymer composite (WPC) products

FORESTAR





PRODUCT RAW MATERIAL AND PACKAGING COMPOSITION

Product and Packaging Material	Weight,	Post- consumer %	Renewable %	Country Region of origin
WOOD POWDER	0.60	0	100	China
PE/HDPE	0.30	100	0	China
ADDITIVES	0.10	0	0	China
Wood pallet	0.2962	0	100	China
Packaging film	0.00287	0	0	China
Polyethylene foamed	0.00022	0	0	China
TOTAL product weight	1	30	60	China
TOTAL packaging weight	0.29929	0	98	China

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).





PRODUCT LIFE-CYCLE

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes.

The product stage of the Wood-polymer composite (WPC) products is divided into 3 modules: A1 "Raw material and supply", A2 "Transport to the manufacturer" and A3 "Manufacturer". The aggregation of the modules A1, A2 and A3 is a possibility considered by the EN 15804 standard. This rule is applied in this EPD.

A1 Raw material supply takes into account the extraction and processing of all raw materials and energy which occur upstream to the studied manufacturing process. Specifically, WPC raw material supply covers sourcing of wood fibre, HDPE and other additives. Electricity and Heating is taken account for at least country specific mix.

A2 Transport to the manufacturer. The raw materials are transported to the manufacturing site.

In our case, the modelling includes leg 1 lorry (average values) of each raw material.



Environmental Product Declaration created with One Click LCA



A3 Manufacturing. Manufacturing covers all processes linked to production, including: Mixing of all raw materials (including wood fibre, PE and additives); pelletizing; co-extrusion moulding; water cooling; polishing and cutting process. Then products are packaged.

The environmental profile of these energy carriers (State Grid and Heat Corporation) is modelled for local conditions.

Packaging-related flows in the production process are included in the manufacturing module, i.e. packaging film, wood pallet and Polyethylene foam. Apart from production of packaging material, the supply and transport of packaging material are also considered in the LCA model.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

The construction process is divided into 2 modules: A4 "Transport to the building site" and A5 "Installation in the building.

A4 Transport to the building site. This module includes transport from the production gate to the building site. Transport is calculated on the basis of a scenario with the parameters described. The average transportation distance from production plant to building site is assumed as 500 km transported by lorry and 10000 nautical mile transported by ship.

A5:1 Installation in the building. occur in this stage. This module includes product installation losses and energy consumption during the installation of product, i.e. the additional production processes to compensate the loss. And the waste processing which occur in this stage. For WPC products,

Wood-polymer composite (WPC) products



there is no energy consumption because of only assembling with a cordless screwdriver. As a general figure the time to install 1kg WPC is considered to be 30 minutes. During this time the installer is considered to use screwdriver appliances for about 10% of this time which in this case results in 3 minutes. A cordless screwdriver is considered to have a power of 0.07 kW. Therefore, in 3 minutes it will consume a total energy of 0.07*3/60 = 0.004kWh, per declare product. In this context it is a negligible contribution and will not be part of the LCA calculation (lower than 1% of the total energy consumption).

In installation, the fasteners are considered as 0.002 kg/declare unit. It is lower than 1% of mass input, So considered to be cut-off flow.

The packaging waste includes packaging plastic, wood pallet and polyethylene foamed in A5.

The end of life of packaging are considered as: Wood: recycling 31.9%, landfill 19%, incineration 49.1%. Plastic: recycling 37.6%, landfill 19%, incineration 43.4% followed EU 27 waste management scenario.

The product losses during the installation and construction activities estimated as 5%.

The share of product lost during the installation and construction activities as 5%. It means the waste of products during the implementation, the additional production processes to compensate the loss processing which occur in this stage.

For data sets in this study, the allocation of the inputs is generally carried out via the mass. The consumption and transportation of raw materials was allocated by mass ratio.

During the production process, there is no other by-products produced from the production line. Hence there is no occasion that requires allocation for processes.



For energy and water and waste production is allocated equally among all products through mass allocation.

PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase.

Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

The end-of life stage is divided into 4 modules: C1 "De-construction, demolition", C2 "Transport to waste processing", C3 "Waste processing for reuse, recovery and/or recycling", C4 "Disposal".

- C1, De-construction, demolition. For WPCs, there is no energy consumption considered because of assembling with a cordless screwdriver. Consumption of energy and natural resources in demolition process assumed to be negligible.
- C2, Transport to waste processing. It is estimated that there is no mass loss during the use of the product, therefore the end-of-life product is assumed that it has the same weight with the declared product. All of the end-of-life product is assumed to be transported as separate construction waste to the closest facilities. Transportation distance to the closest disposal area is estimated as 100 km and the transportation method is lorry which is the most common.
- C3, Waste processing for reuse, recovery and/or recycling. It is assumed that 100% of products are collected at demolition site. Losses in the sorting process are assumed to be very small and not considered in the assessment.
- C4, Disposal. There is no waste to landfill disposal considered



6

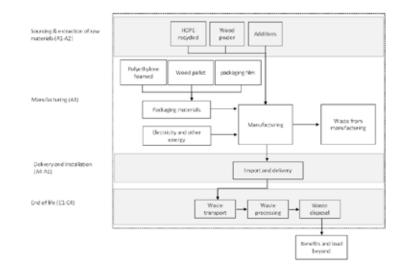


Since there is not a readily available waste management scenario to follow in EU 27 waste management scenario, now 90% of the waste product will be recycled, for the rest 10% of waste product, incineration was considered in LCA modelling.

Waste WPC products can be melted and recycled through granulating and extrusion to make new WPC products. D, Reuse/recovery/recycling



MANUFACTURING PROCESS





Environmental Product Declaration created with One Click LCA

Wood-polymer composite (WPC) products



LIFE-CYCLE ASSESSMENT

LIFE-CYCLE ASSESSMENT INFORMATION

Period for data	2021
DECLARED ANI	D FUNCTIONAL UNIT

Declared unit	1 kg
Mass per declared unit	1 kg
Functional unit	-
Reference service life	10 years

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0.04
Biogenic carbon content in packaging, kg C	0.13

SYSTEM BOUNDARY

This EPD covers the cradle to gate with options scope with the following modules; A1 (Raw material supply), A2 (Transport) and A3 (Manufacturing), A4 (Transport), A5 (Assembly) as well as C1 (Deconstruction), C2 (Transport at end-of-life), C3 (Waste processing) and C4 (Disposal). In addition, module D - benefits and loads beyond the system boundary is included.



Pro	duct st	age		embl age			ί	Jse sta	ge			En	d of I	ife st	age	Beyond th system boundarie			
A1	A2	А3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	С3	C4	D	D	D	
х	x	×	х	х	MN D	MN D	MN D	MN D	MN D	MN D	MN D	x	x	х	x	x	х	x	
Geogr	aphy, b	y two-l	etter	ISO co	ountry	code o	regior	s. The	Interna	ational	EPD Sy	stem	only.						
Chin a	Chin a	Chin a	EU	EU	-	-	-	-	-	-	-	EU	EU	EU	EU	EU			
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demol.	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling	

Modules not declared = MND, Modules not relevant = MNR.

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the EN 15804:2012 +A2:2019/AC:2021 and the applied PCR. The study does not exclude any hazardous materials or substances.

The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.







ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation.

In this study, as per EN 15804, allocation is conducted in the following order;

- 1. Allocation should be avoided.
- 2. Allocation should be based on physical properties (e.g. mass, volume) when the difference in revenue is small.
- 3. Allocation should be based on economic values.

Allocation used in Ecoinvent 3.6 environmental data sources follows the methodology 'allocation, cut-off by classification'. This methodology is in line with the requirements of the EN 15804 -standard.

For data sets in this study, the allocation of the inputs is generally carried out via the mass. The consumption and transportation of raw materials was allocated by mass ratio.

During the production process, there is no other by-products produced from the production line. Hence there is no occasion that requires allocation for processes.

For this project, there is only one production site. So, there is no allocation among plants. For incoming energy, water, and waste which support production allocation equally among all product through mass allocation data for year 2021.

Environmental Product Declaration created with One Click LCA

AVERAGES AND VARIABILITY

The International EPD System additional data requirements

Data specificity and GWP-GHG variability for GWP-GHG for A1-A3.

Supply-chain specific data for GWP-GHG	>90%
Variation in GWP-GHG between products	N/A
Variation in GWP-GHG between sites	N/A

The results are for one EPD product for one manufacturing site. Variation in GWP-GHG between products and Variation in GWP-GHG between sites are not considered.

Wood-polymer composite (WPC) products

FORESTAR



ENVIRONMENTAL IMPACT DATA

Note: additional environmental impact data may be presented in annexes.

CORE ENVIRONMENTAL IMPACT INDICATORS - EN 15804+A2, PEF

Impact category	Unit	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	C3	C4	D
GWP – total	kg CO ₂ e	3,55E - 1	3,8E - 2	9,61E - 2	4,9E - 1	2,77E - 1	5,4E - 1	MND	0E0	9,1E - 3	1,43E - 1	0E0	3,84E - 2						
GWP – fossil	kg CO₂e	4,89E - 1	3,8E - 2	5,84E - 1	1,11E0	2,79E - 1	8,19E - 2	MND	0E0	9,09E - 3	6,79E - 2	0E0	- 1,48E - 1						
GWP – biogenic	kg CO ₂ e	- 1,34E - 1	3,41E - 6	- 4,88E - 1	- 6,22E - 1	- 2,38E - 5	4,89E - 1	MND	0E0	6,6E - 6	1,34E - 1	0E0	1,87E - 1						
GWP – LULUC	kg CO₂e	4,57E - 4	1,36E - 5	3,02E - 4	7,72E - 4	1,68E - 4	5,21E - 5	MND	0E0	2,74E - 6	3,1E - 5	0E0	- 3,68E - 4						
Ozone depletion pot.	kg CFC ₋₁₁ e	7,65E - 8	8,58E - 9	1,32E - 8	9,83E - 8	5,81E - 8	9,06E - 9	MND	0E0	2,14E - 9	9,23E - 10	0E0	- 1,02E - 8						
Acidification potential	mol H⁺e	2,06E - 3	1,58E - 4	5,64E - 3	7,86E - 3	7,41E - 3	8,18E - 4	MND	0E0	3,82E - 5	1,11E - 4	0E0	- 1,12E - 3						
EP-freshwater ²⁾	kg Pe	1,58E - 5	3,49E - 7	3,61E - 5	5,23E - 5	1,47E - 6	2,85E - 6	MND	0E0	7,39E - 8	8,69E - 7	0E0	- 1,01E - 5						
EP-marine	kg Ne	3,66E - 4	4,64E - 5	7,92E - 4	1,2E - 3	1,83E - 3	1,74E - 4	MND	0E0	1,15E - 5	2,77E - 5	0E0	- 1,41E - 4						
EP-terrestrial	mol Ne	3,97E - 3	5,13E - 4	8,71E - 3	1,32E - 2	2,04E - 2	1,89E - 3	MND	0E0	1,27E - 4	2,98E - 4	0E0	- 1,65E - 3						
POCP ("smog")	kg NMVOCe	1,31E - 3	1,62E - 4	2,85E - 3	4,32E - 3	5,33E - 3	5,42E - 4	MND	0E0	4,08E - 5	7,76E - 5	0E0	- 5,17E - 4						
ADP-minerals & metals	kg Sbe	6,56E - 6	8,94E - 7	2,32E - 6	9,78E - 6	2,64E - 6	7,23E - 7	MND	0E0	1,55E - 7	9,68E - 8	0E0	- 4,74E - 7						
ADP-fossil resources	МЈ	9,02E0	5,76E - 1	7,03E0	1,66E1	3,73E0	1,13E0	MND	0E0	1,41E - 1	2,21E - 1	0E0	- 1,85E0						
Water use ¹⁾	m³e depr.	1,27E - 1	2,24E - 3	2,91E - 1	4,2E - 1	9,33E - 3	2,11E - 2	MND	0E0	5,26E - 4	7,23E - 3	0E0	- 1,72E - 2						

1) GWP = Global Warming Potential; EP = Eutrophication potential; POCP = Photochemical ozone formation; ADP = Abiotic depletion potential. 2) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and lonizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. 3) Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e









USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
Renew. PER as energy	MJ	5,33E - 1	7,33E - 3	2,02E0	2,57E0	3,05E - 2	1,33E - 1	MND	0E0	1,78E - 3	2,05E - 2	0E0	- 2E0						
Renew. PER as material	MJ	1,62E0	0E0	4,62E0	6,24E0	0E0	- 4,7E0	MND	0E0	0E0	- 1,54E0	0E0	- 6,52E - 1						
Total use of renew. PER	MJ	2,15E0	7,33E - 3	6,65E0	8,81E0	3,05E - 2	- 4,57E0	MND	0E0	1,78E - 3	- 1,52E0	0E0	- 2,66E0						
Non-re. PER as energy	MJ	7,89E0	5,76E - 1	6,89E0	1,54E1	3,73E0	1,06E0	MND	0E0	1,41E - 1	2,21E - 1	0E0	- 1,8E0						
Non-re. PER as material	MJ	1,14E0	0E0	8,22E - 2	1,22E0	0E0	- 1,38E - 1	MND	0E0	0E0	- 1,08E0	0E0	9,44E - 4						
Total use of non-re. PER	MJ	9,02E0	5,76E - 1	6,97E0	1,66E1	3,73E0	9,26E - 1	MND	0E0	1,41E - 1	- 8,64E - 1	0E0	- 1,8E0						
Secondary materials	kg	2,56E - 1	0E0	4,42E - 5	2,56E - 1	0E0	1,28E - 2	MND	0E0	0E0	0E0	0E0	1,19E - 3						
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	0E0	0E0	0E0	0E0	0E0						
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	MND	0E0	0E0	0E0	0E0	0E0						
Use of net fresh water	m3	2,53E - 3	1,13E - 4	4,4E - 3	7,05E - 3	4,56E - 4	4,5E - 4	MND	0E0	2,94E - 5	2,26E - 4	0E0	- 4,45E - 4						

⁶⁾ PER = Primary energy resources

END OF LIFE – WASTE

Impact category	Unit	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	B6	В7	C1	C2	C3	C4	D
Hazardous waste	kg	2,46E - 2	6,68E - 4	3,43E - 2	5,96E - 2	4,18E - 3	4,29E - 3	MND	0E0	1,37E - 4	0E0	0E0	- 1,08E - 2						
Non-hazardous waste	kg	7,53E - 1	5,4E - 2	1,4E0	2,2E0	1,4E - 1	3,4E - 1	MND	0E0	1,52E - 2	0E0	0E0	- 3,36E - 1						
Radioactive waste	kg	3,9E - 5	3,88E - 6	1,56E - 5	5,85E - 5	2,6E - 5	4,77E - 6	MND	0E0	9,7E - 7	0E0	0E0	- 7,74E - 6						

11



environmental Product Declaration created with One Click LCA

Wood-polymer composite (WPC) products





END OF LIFE - OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0E0	0E0	0E0	0E0	0E0	0E0	MND	0E0	0E0	0E0	0E0	0E0						
Materials for recycling	kg	0E0	0E0	1E - 1	1E - 1	0E0	2,05E -	MND	0E0	0E0	1,8E0	0E0	0E0						
Materials for energy rec	kg	0E0	0E0	0E0	0E0	0E0	0E0	MND	0E0	0E0	0E0	0E0	0E0						
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	1,82E0	MND	0E0	0E0	1,9E - 1	0E0	0E0						

ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

mpact category	Unit	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
GWP-GHG	kg CO2e	4,89E - 1	3,8E - 2	5,84E - 1	1,11E0	2,79E - 1	8,19E - 2	MND	0E0	9,09E - 3	6,79E - 2	0E0	- 1,48E - 1						

This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013) This indicator Is almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.





SCENARIO DOCUMENTATION

Manufacturing energy scenario documentation

Scenario parameter	Value
Electricity data source and quality	LCA study for country specific
	electricity mixes based on IEA,
	OneClickLCA 2023
Electricity CO ₂ e / kWh	0.81
District heating data source and quality	LCA study for Reference product:
	heat, district or industrial,
	other than natural gas.
	Ecoinvent, year: 2019
District heating CO ₂ e / kWh	0.12



BIBLIOGRAPHY

ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations. Principles and procedures.

ISO 14040:2006 Environmental management. Life cycle assessment. Principles and frameworks.

ISO 14044:2006 Environmental management. Life cycle assessment. Requirements and guidelines.

Ecoinvent database v3.6 (2019) and One Click LCA database.

EN 15804:2012 +A2:2019/AC:2021 Sustainability in construction works – Environmental product declarations – Core rules for the product category of construction products.

Int'l EPD System PCR 2019:14 Construction products, version 1.2.5 (01.11.2022)

Wood-polymer composite (WPC) products LCA background report 27.03.2023



Environmental Product Declaration created with One Click LCA

Wood-polymer composite (WPC) products







ABOUT THE MANUFACTURER

Xuancheng Fumeida New Materials Co., LTD (brand:Forestar) is a Chinese WPC manufacturer of production system that designed for both household decoration and commercial buildings.

As a leading plastics recycler and producer of green composite, we manufacture in an energy efficient way, virtually waste-free production process.

Additionally, we have established Forestar Industry Design Center by developing partnership with domestic universities and the Rococo Industry Design Group. Just as our name shows, we are leading our industry towards better designs, quality, products as well as customer experiences. We believe we can become "Your lifelong WPC partner".

EPD AUTHOR AND CONTRIBUTORS

Manufacturer	Xuancheng Fumeida New Materials Co., LTD
EPD author	Shuting Fan, Intertek
EPD verifier	Elisabet Amat, GREENIZE
EPD program operator	The International EPD System
Background data	This EPD is based on Ecoinvent 3.6 (cut-off) and One Click LCA databases.
LCA software	The LCA and EPD have been created using One Click LCA Pre-Verified EPD Generator for Construction products





VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with EN 15804, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The background report (project report) for this EPD

Why does verification transparency matter? Read more online.

VERIFICATION OVERVIEW

Following independent third party has verified this specific EPD:

EPD verification information	Answer
Independent EPD verifier	Elisabet Amat, GREENIZE
EPD verification started on	2023-05-17
EPD verification completed on	2023-06-20
Supply-chain specific data %	>90%
Approver of the EPD verifier	The International EPD System

Author & tool verification	Answer
EPD author	Shuting Fan, Intertek
EPD author training completion	2022-11-04
EPD Generator module	Construction products
Independent software verifier	Ugo Pretato, Studio Fieschi & soci
Software verification date	2021-05-11



Environmental Product Declaration created with One Click LCA



I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of

- the data collected and used in the LCA calculations,
- the way the LCA-based calculations have been carried out,

FORESTAR

- the presentation of environmental data in the EPD, and
- other additional environmental information, as present

with respect to the procedural and methodological requirements in ISO 14025:2010 and EN 15804:2012 +A2:2019/AC:2021.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Elisabet Amat



Wood-polymer composite (WPC) products





ANNEX 1: ENVIRONMENTAL IMPACTS - EN 15804+A1, CML / ISO 21930

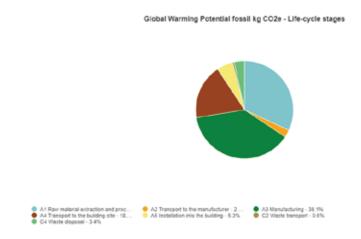
Impact category	Unit	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO₂e	4,76E - 1	3,77E - 2	5,8E - 1	1,09E0	2,77E - 1	8,35E - 2	MND	0E0	9,01E - 3	6,73E - 2	0E0	- 1,45E - 1						
Ozone depletion Pot.	kg CFC-11e	6,43E - 8	6,82E - 9	1,12E - 8	8,24E - 8	4,6E - 8	7,43E - 9	MND	0E0	1,7E - 9	8,87E - 10	0E0	- 9,27E - 9						
Acidification	kg SO2e	1,68E - 3	9,2E - 5	4,87E - 3	6,65E - 3	5,85E - 3	6,61E - 4	MND	0E0	1,85E - 5	8,91E - 5	0E0	- 9,6E - 4						
Eutrophication	kg PO₄³e	7,57E - 4	2E - 5	1,22E - 3	2E - 3	6,62E - 4	3,16E - 4	MND	0E0	3,74E - 6	5,61E - 5	0E0	- 2,7E - 4						
POCP ("smog")	kg C₂H₄e	1,09E - 4	4,99E - 6	1,9E - 4	3,04E - 4	1,57E - 4	2,52E - 5	MND	0E0	1,17E - 6	3,3E - 6	0E0	- 5,11E - 5						
ADP-elements	kg Sbe	6,56E - 6	8,94E - 7	2,32E - 6	9,78E - 6	2,64E - 6	7,23E - 7	MND	0E0	1,55E - 7	9,68E - 8	0E0	- 4,74E - 7						
ADP-fossil	MJ	9,02E0	5,76E - 1	7,03E0	1,66E1	3,73E0	1,13E0	MND	0E0	1,41E - 1	2,21E - 1	0E0	- 1,85E0						







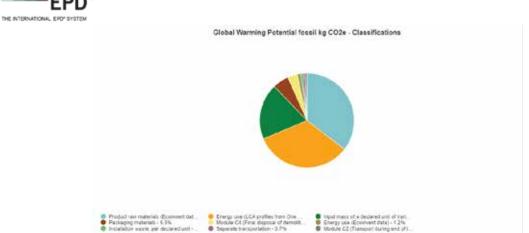
ANNEX 2: LIFE-CYCLE ASSESSMENT RESULT VISUALIZATION





One Click LCA Environmental Product Declaration created with One Click LCA

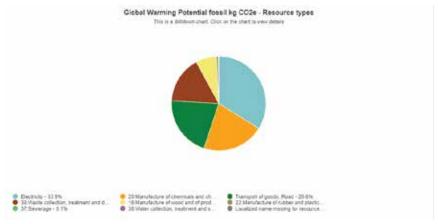
Wood-polymer composite (WPC) products













Monitoring summary report for Xuancheng Fumeida New Materials Co., Ltd amfo

MONITORING ID: 22-0127569-2



Monitored Party amfori ID Address

Xuancheng Fumeida New 156-004343-000 No.5, Meizigang Road, North Materials Co., Ltd District Industrial Park, 242000

Xuancheng, Anhui Sheng, China

Monitoring Activity Monitoring Type Monitoring Partner

amfori Social Audit - Follow-up Monitoring SGS

Monitoring Start Date Closing Meeting Finished Date Submission Date

22/05/2023 29/05/2023 29/05/2023

Expiration Date Announcement Type 25/05/2024 Semi Announced

Site Site amfori ID

Xuancheng Fumeida New 156-004343-002

Materials Co., Ltd

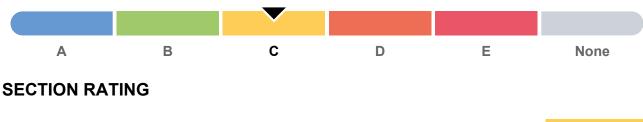
Manufacturing

This is an extract of the online Monitoring Result, generated on 29/05/2023, and is only valid as an acknowledgement of the result. To see all the details, review the full monitoring result, which is available on the <u>amfori Sustainability</u> <u>Platform</u> - The English version is the legally binding one.

amfori does not assume any liability with regard to the compliance of this extract, or any versions of this extract, with the Regulation (EU) 2016/679 (General Data Protection Regulation).

All rights reserved. No part of this publication may be reproduced, translated, stored in a retrieval system, or transmitted, in any form or by any means electronic, mechanical, photocopying, recording or otherwise, be lent, re-sold, hired out or otherwise circulated without the amfori consent.© amfori, 2021

OVERALL RATING



PA1: Social Management System	С	
PA 2: Workers Involvement and Protection	В	
PA 3: The Rights of Freedom of Association and Collective Bargaining	A	
PA 4: No Discrimination	A	
PA 5: Fair Remuneration	В	
PA 6: Decent Working Hours	D	

PA 7: Occupational Health and Safety	A	
PA 8: No Child Labour	A	
PA 9: Special Protection for Young Workers	A	
PA 10: No Precarious Employment	Α	
PA 11: No Bonded Labour	Α	
PA 12: Protection of the Environment	Α	
PA 13: Ethical Business Behaviour	A	

GENERAL DESCRIPTION

Name of lead auditor: Grace Xu; APSCA membership number (CSCA 21701996)

Name of team auditor (if applicable): Nil

Name of observers, translators, trainees, advisors/consultants (if applicable): Nil

Monitoring partner name: SGS (Monitoring firm APSCA #: 11600006)

Audit schedule details: The audit was planned for 1 auditor x 1 day. The follow-up audit (semi-announced) was conducted on May 22, 2023.

Business partner information: Xuancheng Fumeida New Materials Co., Ltd is located at No.5, Meizigang Road, North District Industrial Park, Xuancheng, Anhui Province, China. The factory registered in Market Supervision Administration of Xuancheng City, having unified social credit code 91341802672610346Q (1-1) date on Mar.12,2008 and valid to long term. The main product was WPC Decking. The main process included mixing, plasticizing, extruding, polishing, cutting, inspecting and packing.

Audited location information: The audited factory used one 1-storey building (about 3022.1 m2)as finished goods warehouse, used one 1-storey building (about 6864.9 m2) as mixing, plasticizing, extruding, polishing, cutting, inspecting and packing, used 1F of one 3-storey building (about 1156 m2)as canteen and kitchen, used 2F and 3F as dormitory rooms, used one 4-storey building (about 1854m2) as office.

Operating shifts and hours & Time recording system: The main auditee had established working hours procedure and used finger or face printing machine to record workers' working time. During the audit, the main auditee had provided the attendance records from Jun.1, 2022 to May 22, 2023 and the payrolls from Jun. 2022 to Apr.2023 for review. Based on worker interviews and document review, workers' regular working time was 5 days per week (from Monday to Friday) and 8 hours per day. Two shifts had been arranged for mixing, plasticizing and extruding workers: 07:30~19:30,19:30~07:30, one shift was arranged for other production workers from 7:30-11:30,12:30~16:30,17:30-19:30 were regarded as overtime, and worked 10 hours on Saturdays normally, the maximum daily overtime was 2 hours, the maximum monthly overtime was 94 hours, and the maximum weekly working time was 60 hours. All workers rest on every Sunday and all statutory holidays. Workers could choose work overtime or not, and the main auditee paid enough overtime wage according to legal law.

Salary payment details: The main auditee had established wage and benefits procedure, workers minimum wage, statutory holidays, annual leave etc. were defined in the procedure. During the audit, the main auditee had provided the attendance records from Jun.1, 2022 to May 22, 2023 and the payrolls from Jun. 2022 to Apr.2023 for review. Based on worker interviews and document review, workers were paid by hourly rate, their minimum wage was RMB 2000/month, which was meet the minimum wage standard local city ((Legal minimum wage: RMB 1500 per month or RMB 8.62 per hour before Mar.1,2023, RMB 1930 per month or RMB 11.09 per hour since Mar.1,2023). No any fee was deducted from workers' wage, the main auditee would not punish workers with fines. The main auditee paid workers' current wage to workers at 20th of the following month by cash. The main auditee had provided social insurance for some workers.

Living Wage: The living wage data is provided by the auditing company and please refer to the PA 5 summary to find the details of calculation method of living wage.

Worker number information:

There were totally 96 workers including 47 production workers and 49 non-production workers. Totally 8 domestic migrant workers including 7 male and one female. No young workers, child workers, disabled workers, breastfeeding workers, pregnant women, and no interns, apprentices, or subcontractors.

Good practices: Nil

Worker organization details: There was no trade union in the factory, and 4 worker representatives were elected freely in the factory.

Circumstances: The factory management and workers were actively cooperated with the audit, and the factory processes were all normally operated.

The special circumstances can be classified as followed: The auditor found that there were no special abnormalities in the factory by checking the IPE and enterprise inspection websites.

Summary of findings:

PA 1: amfori BSCI code management and working hours's management system was not perfect.

PA 2: Workers did not knew the amfori BSCI Code well, some workers did not know workers representative and did not understand worker representative's responsibility well.

PA 5: Insufficient social insurance was provided to workers.

PA 6: Workers' monthly overtime hours exceed the legal requirement.

PA 7: HS management system was not perfect, some raw materials were lean against lean against directly, occupational health examination was not provided for one sampled worker, secondary containment and MSDS was not provided for lubricate oil, the outer cover of three electrical boxes were not locked and one electrical box was not installed with safeguard.

PA 3, PA 4, PA 8, PA 9, PA 10, PA 11, PA 12, PA 13: N/A

Precautions taken about #COVID-19 in the facility: There was no special requirement for the audited factory to the pandemic.

The Personal Information Protection Law of the People's Republic of China was promulgated on Aug 20, 2021, the producer ensured that relevant personal data and information provided to SGS auditor has been obtained the individual's consent during the audit.

Attachments: During document review it was evidence that some of required documents were not applicable in organization like Agency Labor Contract, Government Wavier on working hours and Collective Bargaining Agreement. All of above documents were not involved in document report.

SITE DETAILS

Site

Xuancheng Fumeida New

Materials Co., Ltd

Site amfori ID **156-004343-002**

GICS Classification

Sector Industry Group Industry

Materials Construction Materials

Sub Industry

Construction Materials

amfori Process Classifications GS1 Classifications

N.A. N.A.

NACE Classification Water Stress Situation

N.A. N.A.

METRICS

Key Metrics

Total workforce	96 Workers
Legal minimum wage in local currency	1930 Monthly
Lowest wage paid for regular work at the site	2000 Monthly
Calculated living wage in local currency	2489 Monthly
Total sample	5 Workers

Other Metrics

Male workers	74	Workers
Female workers	22	Workers
Permanent workers - Male	74	Workers
Permanent workers - Female	22	Workers
Temporary workers - Male	0	Workers
Temporary workers - Female	0	Workers
Seasonal workers - Male	0	Workers
Seasonal workers - Female	0	Workers
Management - Male	11	Workers
Management - Female	2	Workers
Apprentices - Male	0	Workers
Apprentices - Female	0	Workers
Workers on probation - Male	0	Workers
Workers on probation - Female	0	Workers
Workers with night shift - Male	23	Workers
Workers with night shift - Female	1	Workers
Workers with disabilities - Male	0	Workers
Workers with disabilities - Female	0	Workers
Domestic migrant workers - Male	7	Workers
Domestic migrant workers - Female	1	Workers
Foreign migrant workers - Male	0	Workers
Foreign migrant workers - Female	0	Workers
Workers hired directly - Male	74	Workers
Workers hired directly - Female	22	Workers
Workers hired indirectly - Male	0	Workers
Workers hired indirectly - Female	0	Workers
Unionised workers - Male	0	Workers
Unionised workers - Female	0	Workers
Workers under CBA - Male	0	Workers
Workers under CBA - Female	0	Workers
Pregnant workers	0	Workers

Workers on parental leave - Male	0 Workers
Workers on parental leave - Female	0 Workers
Sample - Male	4 Workers
Sample - Female	1 Workers

FINDINGS



PA1: Social Management System

Site: Xuancheng Fumeida New Materials Co., Ltd | Site amfori ID: 156-004343-002

ENGLISH

LOCAL LANGUAGE

Finding(s)

1.1 1st follow up audit on May.22,2023: Open The main auditee partially respected this principle because based on document review, onsite observation, management interview and worker interview , the auditee established management manual about Amfori BSCI and relevant documents of control procedures about social responsibility on Mar.6,2018, but the factory did not ensure an effective management system to implement the Amfori BSCI Code of Conduct and ensure that the Amfori BSCI values and principles are followed in a satisfactory manner for the performance areas as below: PA2 (Workers Involvement and Protection),PA5(Fair Remuneration),PA6(Decent Working Hours) and PA7(Occupational Health and Safety). In addition, the internal assessment on Dec.22,2022 did not identify the non-compliance of monthly overtime. The facility management declared that they did not fully understand Amfori BSCI Code of Conduct and requirements and did not provide adequate training to all workers. It violated the requirement of question 1.1 in amfori BSCI system manual.

2023年5月22日第一次跟进审核:未关闭主要被审核方部分遵守该准则。原因是根据文件审核,现场审核,管理层访谈和员工访谈,被审核方于2018年3月6日建立了实施Amfori BSCI体系的管理手册和相关社会责任程序文件,但是工厂没有确保Amfori BSCI行为准则以及Amfori BSCI的价值和准则被满意的体现:以下PA均尚存在问题:PA2(工人参与和保护),PA5(公平报酬),PA6(体面劳动时间)和PA7(职业健康与安全)。另外,2022年12月22日的内审未识别出月加班的不符合项。工厂解释他们未充分理解Amfori BSCI行为准则和要求,且对员工培训不到位。

违反了amfori BSCI管理手册中问题1.1的要求。

1.4 1st follow up audit on May.22,2023: Open The main auditee partially respected this principle because based on document review, management interview and worker interview, the factory management had realistically calculated the costs of production and delivery times. But the factory did not provide the related document and records on capacity planning for review. In addition, based on electric attendance records from Jun.1, 2022 to the audit day review, all sampled workers' monthly OT hours exceeded the legal requirement, so the factory was not perfect in the implementation of the time system. The facility management declared that delivery time of order was relatively short and number of production workers was relatively small. It violated the requirement of question 1.4 in amfori BSCI system manual.

2023年5月22日第一次跟进审核:未关闭主要被审核方部分遵守该准则。原因是根据文件审核、管理层访谈和员工访谈,工厂管理层了解如何计算生产产能和订单周期,但工厂尚无任何计算方法和记录保留。另外根据工厂提供的2022年06月01日至审核当天的考勤记录显示,所有抽样员工的月加班时间超法规要求,所以工厂在工时系统实施上并不完善。工厂解释是由于订单时间比较紧张和生产员工比较少导致的。

违反了amfori BSCI管理手册中问题1.4的要求。



PA 2: Workers Involvement and Protection

ENGLISH

LOCAL LANGUAGE

Finding(s)

2.4 1st follow up audit on May.22,2023: Open The main auditee partially respects this principle because through document review, the factory had provided training records about amfori BSCI Code, the latest one was conducted on Apr.24, 2023, relevant training material was available onsite, however based on worker interviews, most interviewed workers did not know well about amfori BSCI requirement. The facility management declared that workers did not care about the issue. It violated the requirement of question 2.4 in amfori BSCI system manual.

2023年5月22日第一次跟进审核:未关闭主要被审核方部分遵守该准则。原因是根据文件审核,工厂提供了amfori BSCI COC的培训记录,最近一次在2023年4月24日,现场有培训材料,但是根据员工访谈大部分被访谈员工不清楚amfori BSCI要求。工厂管理层解释工人对该事件不关注。违反了amfori BSCI管理手册中问题2.4的要求。

2.5 1st follow up audit on May.22,2023: New Finding

The main auditee partially respected this principle because two worker representatives had been elected on Mar.6,2023, but 3 out of 5 interviewed workers did not know who the worker representatives were or what the responsibility of worker representative was. The facility management declared that workers did not care about the issue.

It violated the requirement of question 2.5 in amfori BSCI system manual.

2023年5月22日第一次跟进审核:新发现 主要被审核方部分遵守该准则。原因是2023年3月6 日工厂选举了2名员工代表,但是5名被访谈的工人 中的其中3人不认识员工代表是谁,也不知道员工代 表的职责是什么。工厂管理层解释工人对该事件不 关注。

违反了amfori BSCI管理手册中问题2.5的要求。

PA 5: Fair Remuneration

Site: Xuancheng Fumeida New Materials Co., Ltd | Site amfori ID: 156-004343-002

ENGLISH

LOCAL LANGUAGE

Finding(s)

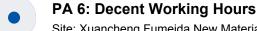
5.5 1st follow up audit on May.22,2023: Open The main auditee did not respect this principle because social insurance was not provided for some worker. There were 96 workers (including 7 retired workers and no worker was recruited in the recent month) in the factory, 62 workers were covered with retirement, unemployment, medical, maternity insurance, and 68 workers were covered with injury insurance. 66 workers were provided with commercial injury insurance (valid from Mar.9,2023 to Mar.8,2024). No evidence was identified that the workers had taken part in the

2023年5月22日第一次跟进审核:未关闭主要被审核方未遵守该准则。原因是工厂未给部分工人提供社保。工厂共有96名工人(包含7名退休工人,没有工人在最近一个月内入职),工厂给62名工人提供了养老、失业、医疗和生育保险,给68工人提供了工伤保险。工厂给66名工人提供了商业意外保险(有效期自2023年3月9日至2024年3月8日)。没有证据显示工厂员工有参加农保,且访谈员工表示自己不愿意参保,工厂解释是因为工人的社保意识不强,且他们不愿意参保。

违反了中华人民共和国劳动法(2018修正)第七十 二条和第七十三条。

Finding(s)

agricultural insurance. The workers expressed that they didn't want to be insured. The facility management declared that the workers' awareness about social insurance was not strong and they were unwilling to participate in social insurance. It violated Labor Law of the People's Republic of China (2018 Amendment) Article 72 and Article 73.



Site: Xuancheng Fumeida New Materials Co., Ltd | Site amfori ID: 156-004343-002

ENGLISH	LOCAL LANGUAGE
Finding(s)	

6.2 1st follow up audit on May.22,2023: Open The main auditee did not respect this principle because based on worker interview, management interview and attendance records from Jun.1,2022 to May.22,2023, all sample production workers' monthly overtime hours exceeded 36 hours, and the maximum monthly overtime was 94 hours in Dec.2022, which include 44 hours on weekdays and 50 hours on weekends. The facility management declared that delivery time of order was relatively short and number of production workers was relatively small. It violated Labor Law of the People's Republic of

China (2018 Amendment), Article 41.

2023年5月22日第一次跟进审核:未关闭 主要被审核方未遵循该准则。原因是根据员工访 谈、管理层访谈以及工厂提供的2022/6/1~2023/5/ 22的考勤记录,所有抽样生产工人的月加班时间均 超过36小时,最大的月加班时间为94小时(2022年 12月),包含44小时的工作日加班时间和50小时的 周末加班时间。工厂解释是由于订单时间比较紧张 和生产员工比较少导致的。

违反了中华人民共和国劳动法(2018修正)第四十 一条。

PA 7: Occupational Health and Safety

had been identified during the audit. In addition,

Site: Xuancheng Fumeida New Materials Co., Ltd | Site amfori ID: 156-004343-002

ENGLISH	LOCAL LANGUAGE
Finding(s)	
7.1 1st follow up audit on May.22,2023: Open The main auditee partially respected this principle because based on onsite observation, document review and management interview, the factory had established complete management system on health and safety, included the identification and awareness of related legal regulation, health and safety check, training etc. But due to the management carelessness, some non-compliance	2023年5月22日第一次跟进审核:未关闭主要被审核方部分遵守该准则。原因是根据现场审核,文件审核及管理层访谈,工厂已建立完整的健康安全管理体系,包括相关法规的识别与了解,健康安全检查,培训等,但是由于管理层疏忽,本次审核仍发现一些不符合项。另外,工厂部分原料直接靠墙堆放。 违反了amfori BSCI管理手册中问题7.1的要求。

Finding(s)

some raw materials were lean against the wall

It violated the requirement of guestion 7.1 in amfori BSCI system manual.

7.2 1st follow up audit on May.22,2023: Closed Based on document review, the factory had provided injury insurance for 68 workers and provided commercial injury insurance for 66 workers.

2023年5月22日第一次跟进审核:关闭 根据文件审核,工厂已给68名工人提供了工伤保 险,为66名工人提供了商业意外保险。

7.3 1st follow up audit on May.22,2023: Open The main auditee partially respected this principle because based on document review, the factory had provided occupational health examination for 60 workers in Jun.2022, but one sampled worker who worked in the workshop with heavy dust and noise was not involved. The facility management declared that it was their management carelessness.

It violated Law of the People's Republic of China on Prevention and Control of Occupational Diseases (2018 Amendment), Article 35

2023年5月22日第一次跟进审核:未关闭 主要被审核方部分遵守该准则。原因是工厂已在 2022年6月提供了职业病体检给60名工人,但是抽 样的一名接触较大噪声和粉尘的工人未包含。工厂 管理层解释这是他们管理疏忽。

违反了中华人民共和国职业病防治法(2018修正) 第三十五条

7.6 1st follow up audit on May.22,2023: Closed Based on onsite observation, all workers who worked in the workshop with heavy noise had worn earplugs.

2023年5月22日第一次跟进审核:关闭 根据现场观察,所有在有较大噪声车间工作的工人 均已佩戴耳塞。

7.7 1st follow up audit on May.22,2023: Open The main auditee did not respect this principle because the secondary containment was not equipped for the lubricate oil and there was no proper label for the chemical containers. The facility management declared that there was no container used as secondary containment and workers did not check safety label in time.

It violated Regulations on Safety Use of Chemicals in Workplaces (1996),

Article 12 and Code of Design on Building Fire Protection and Prevention (GB 50016-2014, 2018 Amendment), Article 3.6.12

2023年5月22日第一次跟进审核:未关闭 主要被审核方未遵守该准则。原因是根据现场观察 工厂的润滑油未设置二次容器,化学品容器上未张 贴合适的标识。工厂管理层解释工厂没有合适的容 器作为二次容器,工厂未及时检查安全标识。 违反了工作场所安全使用化学品规定(1996)第十 二条 和建筑设计防火规范 (GB 50016-2014, 2018 修正) 3.6.12

7.13 1st follow up audit on May.22,2023: Open The main auditee partially respected this principle because based on onsite observation, the outer cover of three electrical boxes in the production workshop were not locked and one electrical box was not installed with outer cover. The facility management declared that the electrician did not check in time.

2023年5月22日第一次跟进审核:未关闭 主要被审核方部分遵守该准则。原因是根据现场观 察,车间内共3个电箱外盖未上锁,一个电箱未安装 外盖。工厂管理层解释电工未进行及时检查。 违反了国家电气设备安全技术规范(GB 19517-2009) 2.2.3

Finding(s)	
It violated National Safety Technical Code for Electric Equipments (GB 19517-2009) 2.2.3	
7.17 1st follow up audit on May.22,2023: Closed Based on onsite observation and document review, there was one pressure vessel which volume was 2m³, but the operator permit of this pressure vessel was not required by legal law.	2023年5月22日第一次跟进审核:关闭 根据现场观察和文件审核,工厂有一个体积为2立方 米的压力容器,但是法规对该压力容器的操作工证 书无要求。



Anhui Fumeida New Material Technology Co., Ltd.

TEST REPORT

SCOPE OF WORK

WPC-Reach

REPORT NUMBER

230109014SHF-001

TEST DATE(S)

2023-01-09 - 2023-01-17

ISSUE DATE

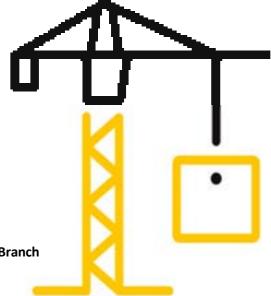
2023-01-18

PAGES

19

DOCUMENT CONTROL NUMBER

LFT-APAC-SHF-OP-10k(September 1, 2022) © 2022 INTERTEK



Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch



Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch Plant 5, No. 6958 Daye Road, Fengxian District, Shanghai, China Tel: +86 21-61136116 Fax: 021-61189921

Website: www.intertek.com

Test Report

Statement

- 1. This report is invalid without company's special seal for testing on the assigned page.
- 2. This report is invalid without an authorized person's signature.
- 3. This report is invalid if altered.
- 4. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Don't copy this report in partial without any official approval in written by our company. This report is invalid without re-stamping the special seal for testing in copying report.
- 5. This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample(s) tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.
- 6. Except for the obligation, responsibility and liability (if any) for the appropriateness and professionality of afore-mentioned testing itself within the scope and amount of the testing fee received, Intertek does not and will not accept any other obligation or liability.
- 7. If the Client has any questions about the test results, Intertek B&C should be informed within the storage period of the samples. The sample storage period ends 5 working days after the offical report issue date. Samples of certification program are retained for the period required by the certification rules. The samples storage period shall be calculated according to the issue date of the original report in the case of quoting results and modifying reports.
- 8. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends 6 years after this report original issue date. The test record retention period for certification program is 10 years. Test records and other pertinent project documentation will be retained for the entire test record retention period.
- 9. The report was digital signed by Shang Hai, Intertek Group plc, please using Adobe Acrobat Reader to verify the authenticity.



Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch Plant 5, No. 6958 Daye Road, Fengxian District, Shanghai, China

Tel: +86 21-61136116 Fax: 021-61189921

Website: www.intertek.com

Test Report

Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

Applicant: Anhui Fumeida New Material Technology Co., Ltd.

Address: 5 Mei Zi Gang Road, North Xuanzhou District Industrial Park, Xuancheng, Anhui province

Attn: Yang yang

Test Type: Performance test, samples provided by the applicant.

Product Information

Product Name		WPC-Reach	Brand	/
Sample	Sample Good Condition		Sample Amount	1 PC
Description		Good Condition	Received Date	2023-01-04
Sample ID		Model	Specification	
S2301090	14SHF.001	161.2x20	/	

Test Methods And Standards

Test Standard	EU REACH Regulation (EC) No 1907/2006 Article 33(1) Obligation to provide information of safe use (see REACH and WFD requirement in report for details)
Specification Standard	EU REACH Regulation (EC) No 1907/2006 Article 33(1) Obligation to provide information of safe use (see REACH and WFD requirement in report for details)
Test Conclusion	The samples were tested according to the above standards, and the results are shown in the following page.

Note:

1. This report does not involve sampling. The report only reflects conformity of the tested items of the samples provided by the testing applicant. Representativeness and authenticity of the submitted samples are responsibilities of the testing applicant.

Name: Flora Fan Name: Vincent Ding
Title: Reviewer Title: Project Engineer



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

Test Items, Method and Results:

Test method: By a combination of Inductively Coupled Argon Plasma Spectrometry, Gas Chromatography – Mass Spectrometry, Liquid Chromatography - Mass Spectrometry, UV-VIS Spectrophotometer, Gas Chromatography - Electron Capture Detector, Headspace Gas Chromatography - Mass Spectrometry and High-Performance Liquid Chromatography.

224 SVHCs and 1 proposed and 9 proposed SVHC Testing Results:

(a) The First List (15 SVHC Released in Oct, 2008)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
1	Cobalt Dichloride Δ	7646-79-9	ND
2	Diarsenic Pentaoxide Δ	1303-28-2	ND
3	Diarsenic Trioxide Δ	1327-53-3	ND
4	Lead Hydrogen Arsenate Δ	7784-40-9	ND
5	Triethyl Arsenate Δ	15606-95-8	ND
6	Sodium Dichromate Δ	7789-12-0, 10588-01-9	ND
7	Bis (Tributyltin) Oxide (TBTO) Δ	56-35-9	ND
8	Anthracene	120-12-7	ND
9	4,4'-Diaminodiphenylmethane (MDA)	101-77-9	ND
10	Hexabromocyclododecane (HBCDD) and All Major Diastereoisomers Identified (α -HBCDD, β -HBCDD, γ -HBCDD)	25637-99-4 and 3194-55-6 (134237-50-6, 134237-51-7, 134237-52-8)	ND
11	5-Tert-Butyl-2,4,6-Trinitro-m-Xylene (Musk Xylene)	81-15-2	ND
12	Bis (2-Ethylhexyl) Phthalate (DEHP)	117-81-7	ND
13	Dibutyl Phthalate (DBP)	84-74-2	ND
14	Benzyl Butyl Phthalate (BBP)	85-68-7	ND
15	Short Chain Chlorinated Paraffins (C ₁₀₋₁₃)	85535-84-8	ND

(b) The Second List (13 SVHC Released in Jan, 2010 and Mar, 2010)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
16	Lead Chromate Δ	7758-97-6	ND
17	Lead Chromate Molybdate Sulphate Red (C.I. Pigment Red $104)\Delta$	12656-85-8	ND
18	Lead Sulfochromate Yellow (C.I. Pigment Yellow 34) Δ	1344-37-2	ND
19	Tris (2-Chloroethyl) Phosphate	115-96-8	ND
20	2,4-Dinitrotoluene	121-14-2	ND
21	Diisobutyl Phthalate (DIBP)	84-69-5	ND
22	Coal Tar Pitch, High Temperature	65996-93-2	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

23	Anthracene Oil	90640-80-5	ND
24	Anthracene Oil, Anthracene Paste, Distn. Lights	91995-17-4	ND
25	Anthracene Oil, Anthracene Paste, Anthracene Fraction	91995-15-2	ND
26	Anthracene Oil, Anthracene-low	90640-82-7	ND
27	Anthracene Oil, Anthracene Paste	90640-81-6	ND
28	Acrylamide	79-06-1	ND

(c) The Third List (8 SVHC Released in Jun, 2010)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
29	Boric Acid Δ	10043-35-3, 11113-50-1	ND
30	Disodium Tetraborate, Anhydrous Δ	1330-43-4, 12179-04-3, 1303-96-4	ND
31	Tetraboron Disodium Heptaoxide, Hydrate Δ	12267-73-1	ND
32	Sodium Chromate Δ	7775-11-3	ND
33	Potassium Chromate Δ	7789-00-6	ND
34	Ammonium Dichromate Δ	7789-09-5	ND
35	Potassium Dichromate Δ	7778-50-9	ND
36	Trichloroethylene	79-01-6	ND

(d) The Fourth List (8 SVHC Released in Dec, 2010)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
37	2-Methoxyethanol	109-86-4	ND
38	2-Ethoxyethanol	110-80-5	ND
39	Cobalt Sulphate Δ	10124-43-3	ND
40	Cobalt Dinitrate Δ	10141-05-6	ND
41	Cobalt Carbonate Δ	513-79-1	ND
42	Cobalt Diacetate Δ	71-48-7	ND
43	Chromium Trioxide Δ	1333-82-0	ND
44	Chromic Acid Δ Dichromic Acid Δ Oligomers of Chromic Acid and Dichromic Acid Δ	7738-94-5 13530-68-2 	ND

(e) The Fifth List (7 SVHC Released in Jun, 2011)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
45	Strontium Chromate Δ	7789-06-2	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

46	2-ethoxyethyl acetate (2-EEA)	111-15-9	ND
47	1,2-Benzenedicarboxylic acid, di-C ₇₋₁₁ -branched and linear alkyl esters (DHNUP)	68515-42-4	ND
48	Hydrazine	7803-57-8, 302-01-2	ND
49	1-methyl-2-pyrrolidone	872-50-4	ND
50	1,2,3-trichloropropane	96-18-4	ND
51	1,2-Benzenedicarboxylic acid, di- C_{6-8} -branched alkyl esters, C_{7} -rich (DIHP)	71888-89-6	ND

(f) The Sixth List (20 SVHC Released in Dec, 2011)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	Results %(w/w)
52	Lead dipicrate Δ	6477-64-1	ND
53	Lead styphnate Δ	15245-44-0	ND
54	Lead azide; Lead diazide Δ	13424-46-9	ND
55	Phenolphthalein	77-09-8	ND
56	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	ND
57	N,N-dimethylacetamide (DMAC)	127-19-5	ND
58	Trilead diarsenate Δ	3687-31-8	ND
59	Calcium arsenate Δ	7778-44-1	ND
60	Arsenic acid Δ	7778-39-4	ND
61	Bis(2-methoxyethyl) ether	111-96-6	ND
62	1,2-Dichloroethane	107-06-2	ND
63	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	ND
64	2-Methoxyaniline; o-Anisidine	90-04-0	ND
65	Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	ND
66	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	ND
67	Pentazinc chromate octahydroxide Δ	49663-84-5	ND
68	Potassium hydroxyoctaoxodizincate di-chromate Δ	11103-86-9	ND
69	Dichromium tris(chromate) Δ	24613-89-6	ND
70	Aluminosilicate Refractory Ceramic Fibres Δ	(Index No. 650-017-00-8)	ND
71	Zirconia Aluminosilicate Refractory Ceramic Fibres Δ	(Index No. 650-017-00-8)	ND

(g) The Seventh List (13 SVHC Released in Jun, 2012)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	ND
74	Diboron trioxide Δ	1303-86-2	ND
75	Formamide	75-12-7	ND
76	Lead(II) bis(methanesulfonate) Δ	17570-76-2	ND
77	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine- 2,4,6(1H,3H,5H)-trione)	2451-62-9	ND
78	β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	59653-74-6	ND
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	ND
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	ND
81	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	548-62-9	ND
82	[4-[[4-anilino-1-naphthyl][4- (dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1- ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	2580-56-5	ND
83	α,α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michl er's base (EC No. 202-959-2)]	6786-83-0	ND
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	561-41-1	ND

(h) The Eighth List (54 SVHC Released in Dec, 2012)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	ND
86	Pentacosafluorotridecanoic acid	72629-94-8	ND
87	Tricosafluorododecanoic acid	307-55-1	ND
88	Henicosafluoroundecanoic acid	2058-94-8	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

89	Heptacosafluorotetradecanoic acid	376-06-7	ND
90	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	ND
91	Cyclohexane-1,2-dicarboxylic anhydride [1] cis-cyclohexane-1,2-dicarboxylic anhydride [2] trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry].	85-42-7 13149-00-3 14166-21-3	ND
92	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cisand trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	25550-51-0 19438-60-9 48122-14-1 57110-29-9	ND
93	4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]		ND
94	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]		ND
95	Methoxyacetic acid	625-45-6	ND
96	N,N-dimethylformamide	68-12-2	ND
97	Dibutyltin dichloride (DBTC) Δ	683-18-1	ND
98	Lead monoxide (Lead oxide) Δ	1317-36-8	ND
99	Orange lead (Lead tetroxide) Δ	1314-41-6	ND
100	Lead bis(tetrafluoroborate) Δ	13814-96-5	ND
101	Trilead bis(carbonate)dihydroxide Δ	1319-46-6	ND
102	Lead titanium trioxide Δ	12060-00-3	ND
103	Lead titanium zirconium oxide Δ	12626-81-2	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

104	Silicic acid, lead salt Δ	11120-22-2	ND
105	Silicic acid ($H_2Si_2O_5$), barium salt (1:1), lead-doped Δ [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]	68784-75-8	ND
106	1-bromopropane (n-propyl bromide)	106-94-5	ND
107	Methyloxirane (Propylene oxide)	75-56-9	ND
108	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	ND
109	Diisopentylphthalate (DIPP)	605-50-5	ND
110	N-pentyl-isopentylphthalate	776297-69-9	ND
111	1,2-diethoxyethane	629-14-1	ND
112	Acetic acid, lead salt, basic Δ	51404-69-4	ND
113	Lead oxide sulfate Δ	12036-76-9	ND
114	[Phthalato(2-)] dioxotrilead Δ	69011-06-9	ND
115	Dioxobis(stearato)trilead Δ	12578-12-0	ND
116	Fatty acids, C16-18, lead salts Δ	91031-62-8	ND
117	Lead cyanamidate Δ	20837-86-9	ND
118	Lead dinitrate Δ	10099-74-8	ND
119	Pentalead tetraoxide sulphate Δ	12065-90-6	ND
120	Pyrochlore, antimony lead yellow Δ	8012-00-8	ND
121	Sulfurous acid, lead salt, dibasic Δ	62229-08-7	ND
122	Tetraethyllead Δ	78-00-2	ND
123	Tetralead trioxide sulphate Δ	12202-17-4	ND
124	Trilead dioxide phosphonate Δ	12141-20-7	ND
125	Furan	110-00-9	ND
126	Diethyl sulphate	64-67-5	ND
127	Dimethyl sulphate	77-78-1	ND
128	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	ND
129	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	ND
130	4,4'-methylenedi-o-toluidine	838-88-0	ND
131	4,4'-oxydianiline and its salts	101-80-4	ND
132	4-aminoazobenzene	60-09-3	ND
133	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	ND
134	6-methoxy-m-toluidine (p-cresidine)	120-71-8	ND
135	Biphenyl-4-ylamine	92-67-1	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

136	o-aminoazotoluene [(4-o-tolylazo-o-toluidine])	97-56-3	ND
137	o-toluidine	95-53-4	ND
138	N-methylacetamide	79-16-3	ND

(i) The Ninth List (6 SVHC Released in Jun, 2013)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
139	Cadmium Δ	7440-43-9	ND
140	Cadmium oxide Δ	1306-19-0	ND
141	Dipentyl phthalate (DPP)	131-18-0	ND
142	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]		ND
143	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	ND
144	Pentadecafluorooctanoic acid (PFOA)	335-67-1	ND

(j) The Tenth List (7 SVHC Released in Dec, 2013)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
145	Cadmium sulphide Δ	1306-23-6	ND
146	Lead di(acetate) Δ	301-04-2	ND
147	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	ND
148	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	ND
149	Dihexyl phthalate	84-75-3	ND
150	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	ND
151	Trixylyl phosphate	25155-23-1	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

(k) The Eleventh List (4 SVHC Released in Jun, 2014)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	ND
153	Cadmium chloride Δ	10108-64-2	ND
154	Sodium perborate; perboric acid, sodium salt Δ	15120-21-5, 11138-47-9	ND
155	Sodium peroxometaborate Δ	7632-04-4	ND

(I) The Twelfth List (6 SVHC Released in December, 2014)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
156	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	ND
157	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	ND
158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4- stannatetradecanoate (DOTE)	15571-58-1	ND
159	Cadmium fluoride Δ	7790-79-6	ND
160	Cadmium sulphate Δ	10124-36-4; 31119-53-6	ND
161	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	ND

(m) The Thirteenth List (2 SVHC Released in June, 2015)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
162	1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5; 68648-93-1	ND
163	5-Sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-Sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]		ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

(n) The Fourteenth List (5 SVHC Released in December, 2015)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
164	1,3-Propanesultone	1120-71-4	ND
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl) phenol (UV-327)	3864-99-1	ND
166	2-(2H-Benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	ND
167	Nitrobenzene	98-95-3	ND
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1; 21049-39-8; 4149-60-4	ND

(o) The Fifteenth List (1 SVHC Released in June, 2016)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	ND

(p) The Sixteenth List (4 SVHC Released in January, 2017)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	ND
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts Nonadecafluorodecanoic acid EC no.: 206-400-3 CAS no.: 335-76-2 Ammonium nonadecafluorodecanoate EC no.: 221-470-5 CAS no.: 3108-42-7 Decanoic acid, nonadecafluoro-, sodium salt EC no.: CAS no.: 3830-45-3		ND
172	4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]		ND
173	p-(1,1-dimethylpropyl)phenol	80-46-6	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

(q) The Seventeenth List (1 SVHC Released in July, 2017)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
174	Perfluorohexane-1-sulphonic acid and its salt (PFHxS)		ND

(r) The Eighteenth List (7 SVHC Released in Jan, 2018)

No.	<u>Chemical Substance</u>	<u>CAS No.</u>	Results %(w/w)
175	Benz[a]anthracene	56-55-3	ND
176	Cadmium nitrate∆	10325-94-7	ND
177	Cadmium carbonate∆	513-78-0	ND
178	Cadmium hydroxide∆	21041-95-2	ND
179	Chrysene	218-01-9	ND
180	1,6,7,8,9,14,15,16,17,17,18,18- Dodecachloropentacyclo[12.2.1.16,9.02, 13.05,10]octadeca-7,15-diene ("Dechlorane Plus"TM) [covering any of its individual anti- and syn-isomers or any combination thereof]	1	ND
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]		ND

(s) The Nineteenth List (10 SVHC Released in Jun, 2018)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
182	Octamethylcyclotetrasiloxane (D4)	556-67-2	ND
183	Decamethylcyclopentasiloxane (D5)	541-02-6	ND
184	Dodecamethylcyclohexasiloxane (D6)	540-97-6	ND
185	Lead	7439-92-1	ND
186	Disodium octaborate∆	12008-41-2	ND
187	Benzo[ghi]perylene	191-24-2	ND
188	Terphenyl hydrogenated	61788-32-7	ND
189	Ethylenediamine (EDA)	107-15-3	ND
190	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (Trimellitic anhydride) (TMA)	552-30-7	ND
191	Dicyclohexyl phthalate (DCHP)	84-61-7	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

(t) The Twentieth List (6 SVHC Released in Jan, 2019)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	ND
193	Benzo[k]fluoranthene	207-08-9	ND
194	Fluoranthene	206-44-0	ND
195	Phenanthrene	85-01-8	ND
196	Pyrene	129-00-0	ND
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8	ND

(u) The Twenty-first List (4 SVHC Released in July, 2019)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
198	4-tert-butylphenol (PTBP)	98-54-4	ND
199	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)		ND
200	2-methoxyethyl acetate	110-49-6	ND
201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)		ND

(v) The Twenty-second List (4 SVHC Released in Jan, 2020)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	ND
203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1- one	71868-10-5	ND
204	Diisohexyl phthalate	71850-09-4	ND
205	Perfluorobutane sulfonic acid (PFBS) and its salts		ND

(w) The Twenty-third List (4 SVHC Released in Jun, 2020)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
206	1-vinylimidazole	1072-63-5	ND
207	2-methylimidazole	693-98-1	ND
208	Butyl 4-hydroxybenzoate	94-26-8	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	ND
-----	---	------------	----

(x) The Twenty-fourth List (2 SVHC Released in Jan, 2021)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
210	bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	ND
211	Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety Δ	-	ND

(y) The Twenty-fifth List (8 SVHC Released in Jul, 2021)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
212	1,4-dioxane	123-91-1	ND
213	2,2-bis(bromomethyl)propane1,3-diol (BMP); 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2- bis(bromomethyl)-1-propanol (TBNPA); 2,3-dibromo-1-propanol (2,3-DBPA)	3296-90-0 36483-57-5 1522-92-5 96-13-9	ND
214 2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers		-	ND
215	4,4'-(1-methylpropylidene)bisphenol; (bisphenol B)	77-40-7	ND
216	Glutaral	111-30-8	ND
217	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]	-	ND
218	Orthoboric acid, sodium salt Δ	13840-56-7	ND
219	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	-	ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

(z) The Twenty-sixth List (4 SVHC Released in Jan, 2022)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
220	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)		ND
221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC)	119-47-1	ND
222	S-(tricyclo(5.2.1.0'2,6)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate Δ	255881-94-8	ND
223	Tris(2-methoxyethoxy)vinylsilane	1067-53-4	ND

(aa) The Twenty-seventh List (1 SVHC Release in Jun 2022)

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
224	N-(hydroxymethyl)acrylamide	924-42-5	ND

(ab) Proposed SVHC in the draft Commission Implementing Decision of June 2021

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
1	Resorcinol	108-46-3	ND

(ac) Proposed SVHC Chemicals list in the Public Consultation on 2 September 2022

No.	<u>Chemical Substance</u>	CAS No.	Results %(w/w)
1	1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-tribromobenzene]	37853-59-1	ND
2	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol	79-94-7	ND
3	4,4'-sulphonyldiphenol	80-09-1	ND
4	4 Barium diboron tetraoxideΔ 13701-59-2		ND
5	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof		ND
6	Isobutyl 4-hydroxybenzoate	4247-02-3	ND
7	Melamine	108-78-1	ND
8	Perfluoroheptanoic acid and its salts		ND
9	reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine		ND



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

Note:

Reporting limit = 0.010% (w/w)

SVHC = Substance of very high concern

ND = Not detected (the result is less than the reporting limit)

Reporting limit = Quantitation limit of analyte in sample

 Δ = Determination was based on elemental analysis. The content was calculated based on assumption of worst-Case

Test location: Central Chemical Lab of Intertek Testing Services Shenzhen Ltd. Guangzhou Branch Address: E701. No. 7-2. Caipin Road, Guangzhou Science City, GETDD Guangzhou, China 510663

REACH requirement:

- 1 Substances of very high concern (SVHC) are classified as:
 - (a) Carcinogenicity category 1A or 1B;
 - (b) Germ cell mutagenicity category 1A or 1B;
 - (c) Reproductive toxicity category 1A or 1B, adverse effects on sexual function and fertility or on development;
 - (d) Persistent, bioaccumulative and toxic (PBT)
 - (e) Very persistent and very bioaccumulative (vPvB)
 - (f) Other substances for which there is scientific evidence of probable serious effects to human health or the environment which give rise to an equivalent level of concern, such as endocrine disrupters
- 2. As per Article 7 of Regulation (EC) No 1907/2006 (REACH) as amended, if a substance of very high concern (SVHC) on the Candidate List for Authorisation is present in articles above a concentration of 0.1% weight by weight (w/w) and the substance is present in those articles in quantities totalling over 1 tonne per producer or per importer per year, then the producer or importer shall notify the European Chemicals Agency (ECHA). The notifications have to be submitted no later than 6 months after the inclusion in the Candidate List. The information to be notified shall include the following:
 - (a) Identity and contact details of the producer or importer;
 - (b) Registration number(s), if available;
 - (c) Identity of the substance;
 - (d) Classification of the substance(s);
 - (e) Brief description of the use(s) of the substance(s) in the article and of the uses of the article(s);
 - (f) Tonnage range of the substance(s).
- 3. As per Article 31 of Regulation (EC) No 1907/2006 (REACH) as amended, the supplier of mixture not classified as hazardous according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP), shall provide the recipient at his request with a safety data sheet, where a mixture contains at least one substance on the SVHC list (Candidate List of substances of very high concern for Authorisation) and its individual concentration is of 0.1% or above by weight for non-gaseous mixtures.



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

- 4. As per Article 33(1) of Regulation (EC) No 1907/2006 (REACH) as amended, any supplier of an article containing a substance of very high concern (SVHC) on the Candidate List for Authorisation in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with information of safe use of the article. An article meets the requirement of Article 33(1) by default when no SVHC exceeds 0.1% weight by weight (w/w).
- 5. As per Article 33(2) of Regulation (EC) No 1907/2006 (REACH) as amended, any supplier of an article containing a substance of very high concern (SVHC) on the Candidate List for Authorisation in a concentration above 0.1% weight by weight (w/w) shall provide the consumer on request with information of safe use of the article, within 45 days of receipt of the request.
- 6. As per Court of Justice of the European Union Judgment in Case C-106/14, Press Release No 100/15 dated 10 September 2015, each of the articles incorporated as a component of a complex product is covered by the relevant duties to notify and provide information when they contain a substance of very high concern in a concentration above 0.1% of their mass.

Waste Framework Directive (WFD) Requirement:

As per Article 9(1)(i) of Directive 2008/98/EC on waste (WFD, Waste Framework Directive) as amended, Member States shall take measures to ensure that any supplier of an article as defined in point 33 of Article 3 of Regulation (EC) No 1907/2006 (REACH) provides the information pursuant to Article 33(1) of Regulation (EC) No 1907/2006 (REACH) to the European Chemicals Agency (ECHA) as from 5 January 2021. Any supplier of an article containing a substance of very high concern (SVHC) on the Candidate List for Authorisation in a concentration above 0.1% weight by weight (w/w) on the EU market is required to submit a SCIP Notification on that article to ECHA, as from 5 January 2021.

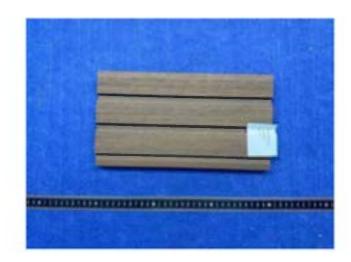
Conclusion:

Tested Samples	Standard	Result
Submitted sample	EU REACH Regulation (EC) No 1907/2006 Article 33(1) Obligation to provide information of safe use (see REACH and WFD requirement in report for details)	Meet requirement



Issue Date: 2023-01-18 Intertek Report No. 230109014SHF-001

Appendix A: Sample Received Photo



Revision:

NO.	Date	Changes
230109014SHF-001	2023-01-18	First issue