YIXING HUALONG NEW MATERIAL LUMBER CO., LTD.

Address: The south develop area of Xijian town, Yixing city 214253,Jiangsu, China
Tel:+86-510-87280368 /Fax:+86-510-87285000

Product Formulation

1. Wood plastic composite (WPC) decking raw materials formulation

The raw materials formulation of the wood plastic composite (WPC) decking boards is 35% of HDPE pellets, and 55% of wood fiber, and 10% of additives :
Paint 1-2%, lubrication agent (compound) 2-3%, Coupling agent 2-3%, calcium carbonate 3-5%, antioxidants 0.3-0.5%，anti-UV（UV-531） 0.3-0.5%

2. Wood plastic composite (WPC) decking production processing

Firstly we have to dry the wood fiber in order to remove the moisture, then we will mix all the raw materials through the high mixing machine, after mixing totally the mixture will be extruded to make the wood plastic composite pellets, and then the wood plastic composite pellets will be extruded out again, but this time the difference is that there is a special mould at the end of the extrusion machine. The wood plastic composite pellets will be extruded through this mould to form the decking shape, then the decking board is produced. After the decking boards are extruded out from the production lines, we will do the surface finishing, and cutting into required length, finally will be packaged well with pallets.

Yixing Hualong New Material Lumber Co.,Ltd

Certificate SGSHK-COC-010038

The Organization

Yixing Hualong New Material Lumber Co., Ltd.

Industrial Concentration Area of Xinjian Town,
Yixing City, Jiangsu Province, P.R. China

has been assessed and certified as meeting the requirements of

FSC® Chain-of-Custody

The company was assessed against the following standards:
FSC-STD-40-004 Version 3.0 FSC Standard for Chain of Custody Certification – April 2017
FSC-STD-50-001 Requirements for use of the FSC trademarks by Certificate Holders

for the products detailed in the scope below

Purchasing FSC 100% wood wool, manufacturing (transfer system) and sales of FSC 100% wood-plastic composites and relevant products including garden furniture and packing case

This certificate is valid from 11 August 2021 until 10 August 2026
and remains valid subject to satisfactory surveillance audits.
Re-certification audit due 90 days prior to expiry date.
Issue 6. Certified since August 2011
SGS Ref # CN11/30951

Authorised by

SGS Hong Kong Limited
Units 303 & 305, 3/F., Building 22E, Phase 3,
Hong Kong Science Park, New Territories, Hong Kong.
t +(852)2334 4481 f +(852)2333 2257 www.sgs.com

FSC
www.fsc.org
FSC® A000523

The mark of responsible forestry

YIXING HUALONG NEW MATERIAL LUMBER CO.,LTD.

Limited Warranty:

Hualong WPC decking comes with a 5-year limited warranty, which should be under proper usage that provides comprehensive coverage against splintering, splitting, rot or decay, and in termite damage. Our products have been tested by China's government organization, which issued a formal test report for our products quality. We can provide this test report copy if it is needed.

Exclusions: Items damaged due to acts of vandalism, misuse, or improper installation is not covered. Proof of purchase (dated register receipt) is required for warranty claims. We don't reimburse for transportation or delivery costs, or compensate the individual or any outside party for assembling or disassembling the product.

Attention:

Although Wood Plastic Composite product has many good features in outdoor usage, while it has some shortages also. The most evident shortage is its IMPACT RESISTANCE is not very good, this is decided by inside structure of this material.

Here is our recommendation:

Please try to keep this material away from heavy impact or attack during usage.

Please take care of it during transportation, installation and storage, avoid its falling from high place.

HUALONG NEW MATERIAL LUMBER CO.,LTD
宜兴市
华龙塑木新材料
有限公司
YIXING

2024/01/01

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VERIFICATION OF CONFORMITY

S/N: 005694

No.: **ICR/VC/CS230710**

Name and address of Applicant	YiXing HuaLong New Material Lumber Co.,Ltd The South Develop Area of Xinjian Town, YiXing City, JiangSu Province, China
Name and address of manufacturer:	YiXing HuaLong New Material Lumber Co.,Ltd The South Develop Area of Xinjian Town, YiXing City, JiangSu Province, China
Product name:	Wood Plastic Composites
Product types:	19mm,21mm,23mm,25mm,26mm,27mm,28mm
Product trademark:	n/a

Verification was carried within following scope:

Information on the Declaration of Conformity:

Result:	**Legislation:**	**Standard:**
✓	CPR	EN 14041:2018

The assessment process has been carried out in accordance with individual rules and conditions agreed with the applicant. Evaluation has been carried out in accordance with:

Test report:	B-S2306B210
Tests conducted by:	Beide (Shenzhen) Product Service Limited
Issue date:	13.07.2023
Expiration date:	12.07.2028

Remarks:

- VoC was issued on voluntary basis and does not imply meeting all essential requirements listed in Declaration of Conformity.

ICR Co. Ltd.
www.icrqa.com
www.icrpolska.com
cert@icrqa.com

CEO, ICR Co., Ltd.

Edition: 5.1.0.B of 01.03.2023

CERTIFICATE

Quality Management System
GB/T 19001-2016 / ISO 9001:2015

YIXING HUALONG NEW MATERIAL LUMBER CO.,LTD.

Certificate No.:	24CN34504948Q
Unified social credit code:	913202827746787390
Registered Address:	Industrial Concentrated Area, Xinjian Town, Yixing
Office & Production Address:	No.109, Xinfeng Road(S), Xinjian Town, Yixing Jiangsu, China
Certification Scope:	Manufacture and Sales of Plastic Wood Composite Materials

IAF 14
This is to certify that the quality management system established and implemented by the above organization meets the standard requirements.
During the validity period of the certificate, the surveillance audit should be carried out once a year and pass the audit, the certificate will continue to be valid.
The certificate can be checked out at the certification body website (www.acmchina.com) and CNCA website (www.cnca.gov.cn).

Date of first registration	**29/03/2018**
Date of this certificate	**22/04/2024**
Date of expiry	**28/03/2027**

Certificate query

IAS ACCREDITED Management Systems Certification Body MSCB-345

IAF MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT

General Manager

ACM INTERNATIONAL CERTIFICATION LIMITED
41 Devonshire Street, Ground Floor, Office 1 London, United Kingdom, WIG 7AJ
Local Office-ACM (CHINA) LIMITED, Rm B201, Building 2, No 352, Waihuan Road, Minhang District, Shanghai 201199, China
T: +86 21-64305860 F: +86 21-64881096 W: www.acmchina.com E: info@acmcert.com.cn

CERTIFICATE

Environmental Management System
GB/T 24001-2016 / ISO 14001:2015

YIXING HUALONG NEW MATERIAL LUMBER CO.,LTD.

Certificate No.:	24CN34504949E
Unified social credit code:	913202827746787390
Registered Address:	Industrial Concentrated Area, Xinjian Town, Yixing
Office & Production Address:	No.109, Xinfeng Road(S), Xinjian Town, Yixing Jiangsu, China
Certification Scope:	Manufacture and Sales of Plastic Wood Composite Materials

IAF 14
This is to certify that the environmental management system established and implemented by the above organization meets the standard requirements.
During the validity period of the certificate, the surveillance audit should be carried out once a year and pass the audit, the certificate will continue to be valid.
The certificate can be checked out at the certification body website (www.acmchina.com) and CNCA website (www.cnca.gov.cn).

Date of first registration	**29/03/2018**
Date of this certificate	**22/04/2024**
Date of expiry	**28/03/2027**

Certificate query

IAS ACCREDITED Management Systems Certification Body MSCB-345

General Manager

ACM INTERNATIONAL CERTIFICATION LIMITED
41 Devonshire Street, Ground Floor, Office 1 London, United Kingdom, WIG 7AJ
Local Office-ACM (CHINA) LIMITED, Rm B201, Building 2, No 352, Waihuan Road, Minhang District, Shanghai 201199, China
T: +86 21-64305860 F: +86 21-64881096 W: www.acmchina.com E: info@acmcert.com.cn

CERTIFICATE

Occupational Health and Safety Management System GB/T 45001-2020 / ISO 45001:2018

YIXING HUALONG NEW MATERIAL LUMBER CO.,LTD.

Certificate No.:	24CN34504950S
Unified social credit code:	913202827746787390
Registered Address:	Industrial Concentrated Area, Xinjian Town, Yixing
Office & Production Address:	No.109, Xinfeng Road(S), Xinjian Town, Yixing Jiangsu, China
Certification Scope:	Manufacture and Sales of Plastic Wood Composite Materials

IAF 14
This is to certify that the occupational health and safety management system established and implemented by the above organization meets the standard requirements.
During the validity period of the certificate, the surveillance audit should be carried out once a year and pass the audit, the certificate will continue to be valid.
The certificate can be checked out at the certification body website (www.acmchina.com) and CNCA website (www.cnca.gov.cn).

Date of first registration	**23/08/2022**
Date of this certificate	**22/04/2024**
Date of expiry	**22/08/2025**

Certificate query

IAS ACCREDITED Management Systems Certification Body MSCB-345

General Manager

ACM INTERNATIONAL CERTIFICATION LIMITED
41 Devonshire Street, Ground Floor, Office 1 London, United Kingdom, WIG 7AJ
Local Office-ACM (CHINA) LIMITED, Rm B201, Building 2, No 352, Waihuan Road, Minhang District, Shanghai 201199, China
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Precisely Right.

Report No.:	**0154221070a1 001**
Client:	**YIXING HUALONG NEW MATERIAL LUMBER CO.LTD** The South Develop Area of Xinjian Town, Yixing City, Jiangsu 214200
Identification/ Model No(s):	co-Extrusion Wood Plastic Composite Decking Item No.: HLC-02 138*23mm
Sample Receiving date:	2017-01-04
Testing Period:	2017-01-05 - 2017-01-13

Test Specification:	*Test result:*
Customer's requirement: 1. Risk Assessment of Articles: Screening of substances of very high concern (SVHC) subject to authorisation, according to (EU) No 143/2011, (EU) No 125/2012, (EU) No 348/2013 and (EU) No 895/2014 (Annex XIV of EC No 1907/2006) and candidate list by European Chemical Agency (ECHA), according to ECHA guideline issued in 2011	please refer to page 3~10

For and on behalf of
TÜV Rheinland (Shanghai) Co., Ltd.

2017-01-13 Joanna Qiao / Assistant Manager

Date *Name/Position*

TüV Rheinland (Shanghai) Co., Ltd., Shanghai TüV Rheinland Building, No. 177 , Lane 777, West Guangzhong Road, Jing'an District, Shanghai, 200072, P.R.China
Tel +86 21 6108 1188 · Fax +86 21 6108 1099 · Mail: service-gc@tuv.com · Web: www.tuv.com

Test Report No.: 0154221070a1 001

Material List:

Item: co-Extrusion Wood Plastic Composite Decking

Item No.: HLC-02 138*23mm

Material No.	Material	Color	Location
M001	Synthetic material	brown	refer to photo
M002	Plastic	brown	refer to photo

1. Screening of SVHCs subject to authorisation, according to (EU) No 143/2011, (EU) No 125/2012, (EU) No 348/2013 and (EU) No 895/2014 (Annex XIV of (EC) No 1907/2006), and SVHCs in candidate list by European Chemical Agency (ECHA), according to ECHA guideline issued in 2011

Product Classification

With reference to Corrigendum to Regulation (EC) no.1907/2006 and ECHA, this product is classified as:

[X] Article

[ ] Article with an integral substance/ mixture

[ ] Combinations of an article (functioning as a container or a carrier material) and a substance/ mixture

[ ] Substance/ mixture

Conclusion:

Conclusion			
Product Location	**Acc. to authorisation list (EU) No 143/2011, (EU) No 125/2012, (EU) No 348/2013 and (EU) No 895/2014 (Annex XIV of EC No 1907/2006), and candidate list by ECHA, according to ECHA guideline issued in 2011,** the detected SVHC concentration is	**Obligation of Importer (*) (For article)**	**Detected Substance (if any)**
co-Extrusion Wood Plastic Composite Decking	<0.1%	Not Nessessary	-

(For article)
(*) To communicate information down the supply chain according to article. 33 of REACH. **OR**
1. Notification to ECHA, if the quantities of SVHC in the produced/imported articles are above 1 ton in total per year per company.
2. Provide sufficient information to ensure safe use of the article and, as a minimum, include the name of the substance, to their customers and on request to consumers within 45 days of the receipt of this request.

Test Report No.: 0154221070a1 001

Test Results

Screening of SVHCs subject to authorisation, according to (EU) No 143/2011, (EU) No 125/2012, (EU) No 348/2013 and (EU) No 895/2014 (Annex XIV of EC No 1907/2006) and SVHCs in candidate list by European Chemical Agency (ECHA), according to ECHA guideline issued in 2011.

Test Method: 1) Test portion is digested with acid and assisted with microwave, the elements are analysed by ICP-OES.
2) Test portion is extracted by organic solvent, semi-quantitative analysis by GC-MS / UV-Vis.
3) Test portion is extracted by organic solvent, the extraction solution is analyzed by Headspace-GC/MS / LC-DAD-MS / LC-MS/MS.

Test No.:	T001
Material No.:	M001 + M002
Result (%)	n.d.

Abbreviation: n.d. = Not Detected (< Reporting Limit)
RL = Reporting Limit
% = Percentage

Test Report No.: 0154221070a1 001

Remark:

(*1) The reporting limit for each individual SVHC subject to authorisation according to (EU) No 143/2011, (EU) No 125/2012, (EU) No 348/2013 and (EU) No 895/2014 (Annex XIV of EC No 1907/2006):

	Substance	CAS No.	Reporting Limit
1	4,4'- Diaminodiphenylmethane (MDA)	101-77-9	0.01%
2	Benzyl butyl phthalate (BBP)	85-68-7	0.01%
3	Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	0.01%
4	Dibutyl phthalate (DBP)	84-74-2	0.01%
5	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	25637-99-4 / 3194-55-6 / 134237-50-6 / 134237-51-7 / 134237-52-8	0.01%
6	5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	81-15-2	0.01%
7	2,4-Dinitrotoluene (2,4-DNT)	121-14-2	0.01%
8	Diisobutyl phthalate (DIBP)	84-69-5	0.01%
9	Tris(2-chloroethyl)phosphate	115-96-8	0.01%
10	Diarsenic pentaoxide (*3)	1303-28-2	0.01%
11	Diarsenic trioxide (*3)	1327-53-3	0.01%
12	Lead chromate (*3)(*4)	7758-97-6	0.01%
13	Lead chromate molybdate sulphate red (C.I. Pigment Red 104) (*3)(*4)	12656-85-8	0.01%
14	Lead sulfochromate yellow (C.I. Pigment Yellow 34) (*3)	1344-37-2	0.01%
15	Trichloroethylene	79-01-6	0.01%
16	Chromium trioxide (*4)	1333-82-0	0.01%
17	Acids generated from chromium trioxide and their oligomers: Names of the acids and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid. (*4)	7738-94-5 / 13530-68-2	0.01%
18	Sodium dichromate (*3)	7789-12-0 / 10588-01-9	0.01%
19	Potassium dichromate (*4)	7778-50-9	0.01%
20	Ammonium dichromate (*4)	7789-09-5	0.01%
21	Potassium chromate (*4)	7789-00-6	0.01%
22	Sodium chromate (*4)	7775-11-3	0.01%
23	Formaldehyde, oligomeric reaction products with aniline (technical MDA) (*11)	25214-70-4	0.01%
24	1,2-Dichloroethane	107-06-2	0.01%
25	Bis(2-methoxyethyl) ether	111-96-6	0.01%
26	Arsenic acid (*3)	7778-39-4	0.01%
27	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	0.01%
28	Dichromium tris(chromate) (*4)	24613-89-6	0.01%
29	Strontium chromate (*4)	7789-06-2	0.01%
30	Potassium hydroxyoctaoxodizincatedichromate (*4)	11103-86-9	0.01%
31	Pentazinc chromate octahydroxide (*4)	49663-84-5	0.01%

(*2) The reporting limit for each individual SVHC in Candidate List by ECHA:

	Substance	CAS No.	Reporting Limit
32	Anthracene	120-12-7	0.01%
33	Bis(tributyltin) oxide (TBTO) (*3) (*5)	56-35-9	0.01%
34	Triethyl arsenate (*3)	15606-95-8	0.01%
35	Lead hydrogen arsenate (*3)	7784-40-9	0.01%
36	Cobalt dichloride (*3)	7646-79-9	0.01%
37	Acrylamide	79-06-1	0.01%
38	Anthracene oil (*7)	90640-80-5	0.01%(*8)
39	Anthracene oil, anthracene paste, distn. lights (*7)	91995-17-4	
40	Anthracene oil, anthracene paste, anthracene fraction (*7)	91995-15-2	
41	Anthracene oil, anthracene-low (*7)	90640-82-7	
42	Anthracene oil, anthracene paste (*7)	90640-81-6	
43	Pitch, coal tar, high temperature (*7)	65996-93-2	
44	Boric acid (*3) (*6)	10043-35-3 / 11113-50-1	0.01%
45	Disodium tetraborate, anhydrous (*3) (*6)	1303-96-4 / 1330-43-4 / 12179-04-3	0.01%
46	Tetraboron disodium heptaoxide, hydrate (*3) (*6)	12267-73-1	0.01%
47	2-Methoxyethanol	109-86-4	0.01%
48	2-Ethoxyethanol	110-80-5	0.01%
49	Cobalt(II) sulphate (*3)	10124-43-3	0.01%
50	Cobalt(II) dinitrate (*3)	10141-05-6	0.01%
51	Cobalt(II) carbonate (*3)	513-79-1	0.01%
52	Cobalt(II) diacetate (*3)	71-48-7	0.01%
53	Alkanes C10-C13, chloro (Short Chain Chlorinated Paraffins) (SCCP)	85535-84-8	0.01%
54	2-Ethoxyethyl acetate	111-15-9	0.01%
55	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	0.01%
56	Hydrazine	302-01-2 / 7803-57-8	0.01%
57	1-Methyl-2-pyrrolidone (NMP)	872-50-4	0.01%
58	1,2,3-Trichloropropane	96-18-4	0.01%
59	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	0.01%
60	Aluminosilicate Refractory Ceramic Fibres (RCF) (*9)	-	0.01%
61	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) (*9)	-	0.01%
62	Bis(2-methoxyethyl) phthalate	117-82-8	0.01%
63	2-Methoxyaniline,o-Anisidine	90-04-0	0.01%
64	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	0.01%
65	Calcium arsenate (*3)	7778-44-1	0.01%
66	Trilead diarsenate (*3)	3687-31-8	0.01%
67	N,N-dimethylacetamide (DMAC)	127-19-5	0.01%
68	Phenolphthalein	77-09-8	0.01%
69	Lead dipicrate (*3)	6477-64-1	0.01%
70	Lead diazide, Lead azide (*3)	13424-46-9	0.01%
71	Lead styphnate (*3)	15245-44-0	0.01%
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME,triglyme)	112-49-2	0.01%
73	1,2-dimethoxyethane,ethylene glycol dimethyl ether (EGDME)	110-71-4	0.01%
74	Diboron trioxide (*3) (*6)	1303-86-2	0.01%
75	Formamide	75-12-7	0.01%
76	Lead(II) bis(methanesulfonate) (*3)	17570-76-2	0.01%
77	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	0.01%

78	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6	0.01%
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone), MK	90-94-8	0.01%
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base), RMK	101-61-1	0.01%
81	[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)] (*10)	2580-56-5	0.01%
82	[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)] (*10)	548-62-9	
83	4,4'-bis(dimethylamino)-4"-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] (*10)	561-41-1	
84	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] (*10)	6786-83-0	
85	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	1163-19-5	0.01%
86	Pentacosafluorotridecanoic acid	72629-94-8	0.01%
87	Tricosafluorododecanoic acid	307-55-1	0.01%
88	Henicosafluoroundecanoic acid	2058-94-8	0.01%
89	Heptacosafluorotetradecanoic acid	376-06-7	0.01%
90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated (OPEO) *[covering well-defined substances and UVCB substances, polymers and homologues]*	-	0.01%
91	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA) (*12)	123-77-3	0.05%
92	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]*	-	0.01%
93	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	0.01%
94	Hexahydromethylphthalic anhydride (MHHPA) [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 cis- and 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	0.01%
95	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	0.01%
96	Diisopentylphthalate	605-50-5	
97	N-pentyl-isopentylphtalate	776297-69-9	
98	Methoxyacetic acid (MAA)	625-45-6	0.01%
99	N,N-dimethylformamide	68-12-2	0.01%
100	1,2-Diethoxyethane	629-14-1	0.01%
101	Diethyl sulphate	64-67-5	0.01%
102	Dimethyl sulphate	77-78-1	0.01%
103	N-methylacetamide	79-16-3	0.01%
104	1-bromopropane (n-propyl bromide)	106-94-5	0.01%
105	Furan	110-00-9	0.01%
106	Methyloxirane (Propylene oxide)	75-56-9	0.01%
107	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	0.01%
108	Dibutyltin dichloride (DBTC) (*3)	683-18-1	0.01%
109	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	0.01%

110	4,4'-methylenedi-o-toluidine	838-88-0	0.01%
111	4,4'-oxydianiline and its salts	101-80-4	0.01%
112	4-Aminoazobenzene	60-09-3	0.01%
114	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	0.01%
113	6-methoxy-m-toluidine (p-cresidine)	120-71-8	0.01%
115	Biphenyl-4-ylamine	92-67-1	0.01%
116	o-aminoazotoluene	97-56-3	0.01%
117	o-Toluidine	95-53-4	0.01%
118	Acetic acid, lead salt, basic (*3)	51404-69-4	0.01%
119	Trilead bis(carbonate) dihydroxide (*3)	1319-46-6	0.01%
120	Lead oxide sulfate (*3)	12036-76-9	0.01%
121	[Phthalato(2-)]dioxotrilead (*3)	69011-06-9	0.01%
122	Dioxobis(stearato)trilead (*3)	12578-12-0	0.01%
123	Fatty acids, C16-18, lead salts (*3)	91031-62-8	0.01%
124	Lead bis(tetrafluoroborate) (*3)	13814-96-5	0.01%
125	Lead cyanamidate (*3)	20837-86-9	0.01%
126	Lead dinitrate (*3)	10099-74-8	0.01%
127	Lead monoxide (lead oxide) (*3)	1317-36-8	0.01%
128	Orange lead (lead tetroxide) (*3)	1314-41-6	0.01%
129	Lead titanium trioxide (*3)	12060-00-3	0.01%
130	Lead titanium zirconium oxide (*3)	12626-81-2	0.01%
131	Pyrochlore, antimony lead yellow (*3)	8012-00-8	0.01%
132	Pentalead tetraoxide sulphate (*3)	12065-90-6	0.01%
133	Silicic acid ($H_2Si_2O_5$), barium salt (1:1), lead-doped *[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]* (*3)	68784-75-8	0.01%
134	Silicic acid, lead salt (*3)	11120-22-2	0.01%
135	Sulfurous acid, lead salt, dibasic (*3)	62229-08-7	0.01%
136	Tetraethyllead (*3)	78-00-2	0.01%
137	Tetralead trioxide sulphate (*3)	12202-17-4	0.01%
138	Trilead dioxide phosphonate (*3)	12141-20-7	0.01%
139	Dipentyl phthalate (DPP)	131-18-0	0.01%
140	Ammonium pentadecafluorooctanoate (APFO) (*13)	3825-26-1	0.01%
141	Pentadecafluorooctanoic acid (PFOA)	335-67-1	0.01%
142	Cadmium (*3)	7440-43-9	0.01%
143	Cadmium oxide (*3)	1306-19-0	0.01%
144	4-Nonylphenol, branched and linear, ethoxylated (NPEO) [*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*]	-	0.01%
145	Dihexyl phthalate	84-75-3	0.01%
146	Trixylyl phosphate	25155-23-1	0.01%
147	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	0.01%
148	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-minonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	0.01%
149	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	0.01%
150	Lead di(acetate) (*3)	301-04-2	0.01%

151	Cadmium sulphide (*3)	1306-23-6	0.01%
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	0.01%
153	Cadmium chloride (*3)	10108-64-2	0.01%
154	Sodium perborate,perboric acid, sodium salt (*3) (*6)	-	0.01%
155	Sodium peroxometaborate (*3) (*6)	7632-04-4	0.01%
156	Cadmium fluoride (*3)	7790-79-6	0.01%
157	Cadmium sulphate (*3)	10124-36-4 / 31119-53-6	0.01%
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	0.01%
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	0.01%
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE) (*14)	15571-58-1	0.01%
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) (*15)	-	0.01%
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	0.01%
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 stereoisomers of [1] and [2] or any combination thereof]	-	0.01%
164	1,3-propanesultone	1120-71-4	0.01%
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	0.01%
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	0.01%
167	Nitrobenzene	98-95-3	0.01%
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	0.01%
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	0.01%

Remark:

(*3) The substances are tested and calculated in terms of its respective elements (e.g. As, Pb, Co, B, Cd, Sn).

(*4) The substances are tested and calculated in terms of Cr (VI).

(*5) The substance is tested and calculated in terms of Tributyl tin.

(*6) The substances are confirmed and tested in terms of Boric acid when Boron is detected in the sample.

(*7) The substances are UVCB (substance of unknown or variable composition, complex reaction products or biological materials), which are identified by its main constituents.

(*8) Individual concentrations to the constituent of UVCB with an amount of < 0.01% were not considered by the calculation of the sum.

(*9) The test results are based on microscopic and chemical evaluation.

(*10) The substances are quantified in terms of Michler's ketone and Michler's base by LC-MS, as Michler's ketone or Michler's base was found exceeds 0.01%.

(*11) The content oligomer is determined by Py-GC/MS.

(*12) The content of diazene-1,2-dicarboxamide is analyzed in terms of its breakdown product.

(*13) The substance is tested in terms of pentadecafluorooctanoate.

(*14) The substance is tested and calculated in terms of Dioctyl tin.

(*15) The substance is tested and calculated in terms of Monooctyl tin and Dioctyl tin.

(*16) The material whose weight is <0.1% of the total weight in an article is neglected for testing.

(*17) For this mixed sample, the result was found to be more than the reporting limit. It's recommended that individual sample should be tested separately.

(*18) The tested material(s) was screened only for selected SVHCs. Selection of tests refers to the material type and application and the possibility of contamination during production & material specific contamination of the product.

Concentration of Detected SVHC in Article

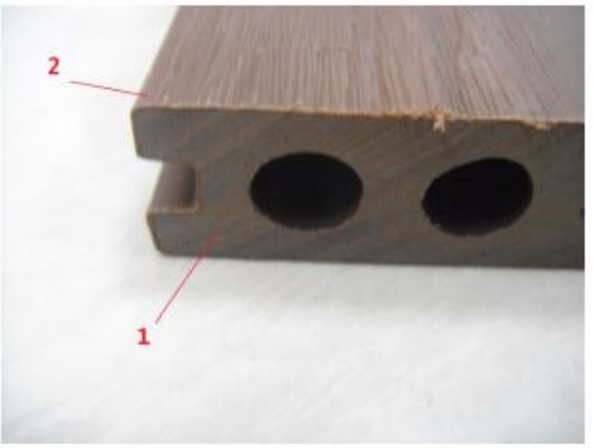
Article: co-Extrusion Wood Plastic Composite Decking

Weight of whole article (g): 1410g

Detected SVHCs	Concentration of detected SVHCs in an article
-	<0.01%

Test Report No.: 0154221070a1 001

Sample Photos



- END -

YIXING HUALONG NEW MATERIAL LUMBER CO., LTD

TEST REPORT

SCOPE OF WORK
WPC DECKING

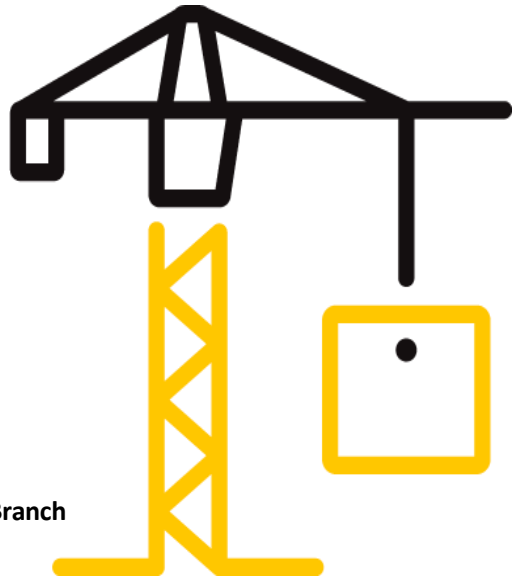
REPORT NUMBER
240307027SHF-011

TEST DATE(S)
2024-03-07 - 2024-05-07

ORIGINAL ISSUE DATE
2024-05-07

PAGES
17

DOCUMENT CONTROL NUMBER
LFT-APAC-SHF-OP-10l(February 1, 2024)



Intertek Testing Services Shenzhen Ltd. Shanghai Fengxian Branch

Test Report

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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

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Applicant: YIXING HUALONG NEW MATERIAL LUMBER CO., LTD

Address: The south develop area of Xinjian town Yixing city Jiangsu China

Attn: WEI ZANG

Manufacturer: YIXING HUALONG NEW MATERIAL LUMBER CO., LTD

Address: The south develop area of Xinjian town Yixing city Jiangsu China

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

Product Information

Product Name	Model	Specification
WPC DECKING	/	150*21
Sample ID	**Sample Amount**	**Sample Received Date**
S240307027SHF.001~007, 009~012	22 pcs	2024-03-01
Sample Description		
150mm×21mm		

Test Methods And Standards

Test Standard	EN 15534-4:2014 Section 4.3, 4.4, 4.5.2, 4.5.3, 4.5.5, 4.5.7 EN 15534-1:2014 Section 6.1, 6.4.2, 6.5, 6.6, 7.4.1, 7.5, 8.3.1, 8.3.2, 8.3.3, 9.3, 9.4, Annex A CEN/TS 15676:2007, EN 479:2018, ISO 16869:2008
Specification Standard	EN 15534-4:2014
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.

Report Authorized

Name: Daniel Zhang Name: Erin Huang

Title: Reviewer Title: Project Engineer

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results
Appearance	EN 15534-4:2014 Section 4.3 EN 15534-1:2014 Section 6.1	Test specimens were no crack, no blister and other visible defects.

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

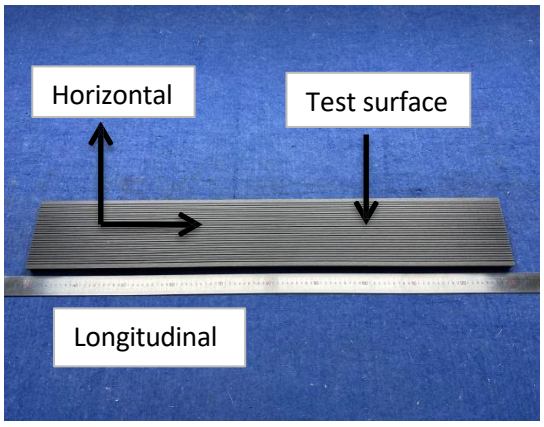
Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results	Test requirements	Verdict
Slipperiness (Pendulum test)	EN 15534-4:2014 Section 4.4 EN 15534-1:2014 Section 6.4.2 CEN/TS 15676:2007	Surface condition: Dry Longitudinal direction: Mean: 41 Min.: 39 Horizontal direction: Mean: 59 Min.: 55	Pendulum value≥36	Pass

Note:

1. Test surface and direction please refer to below picture.



Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results		
Linear mass	EN 15534-4:2014 Section 4.4 EN 15534-1:2014 Section 6.5	Mean.:	3978.25	g/m
		Max.:	3982.34	g/m
		Min.:	3976.08	g/m

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results		
Dimensions	EN 15534-4:2014 Section 4.4 EN 15534-1:2014 Section 6.6	Mean Thickness:	20.44	mm
		Mean Width:	148.59	mm
		Mean Length:	1003.37	mm
		Max. Deviation from straightness in flatwise:	0.13	mm
		Max. Deviation from straightness in edgewise:	0.09	mm
		Max. Cupping:	0.32	mm

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results	Test requirements	Verdict
Flexural properties	EN 15534-4:2014 Section 4.5.2 EN 15534-1:2014 Annex A	Bending Strength: 50.3 MPa Modulus of elasiticity: 5039 MPa Maximum load: Mean: 4932 N Min.: 4737 N Deflection at 500N: Mean: 1.36 mm Max.: 1.56 mm	Flexural properties -F'max: Mean ≥ 3300 N Min. ≥ 3000 N -Deflection under a load of 500 N: Mean ≤ 2,0 mm Max. ≤ 2,5 mm	Pass

Note:

1. The test span was 420 mm offered by applicant.

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results			Test requirements	Verdict
Creep behaviour	EN 15534-4:2014 Section 4.5.3 EN 15534-1:2014 Section 7.4.1	Span:	420	mm	Known span in use	Pass
		Mean ΔS:	3.35	mm	Mean ΔS ≤ 10 mm	
		Max. ΔS:	5.25	mm	Max. ΔS ≤ 13 mm	
		Mean ΔSr:	3.46	mm	Mean ΔSr ≤ 5 mm	

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results			Test requirements	Verdict
Moisture resistance under cyclic test conditions	EN 15534-4:2014 Section 4.5.5 EN 15534-1:2014 Section 8.3.2	Original Bending Strength:	50.3	MPa	Decrease of bending strength, Mean ≤ 20 % Max. ≤ 30 %	Pass
		After exposure,				
		Mean Bending Strength:	42.3	MPa		
		Decrease:	16	%		
		Min Bending Strength:	40.0	MPa		
		Decrease:	20	%		

Note:

1. The test span was 420 mm offered by applicant.

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results	Test requirements	Verdict
Swelling and water absorption (28 days immersion)	EN 15534-4:2014 Section 4.5.5 EN 15534-1:2014 Section 8.3.1	Mean Swelling: 1.35 % in thickness 0.18 % in width 0.08 % in length Max. Swelling: 1.53 % in thickness 0.19 % in width 0.13 % in length Water absorption: Mean: 1.54 % Max.: 1.60 %	Means swelling: ≤ 4 % in thickness ≤ 0,8 % in width ≤ 0,4 % in length Max. swelling: ≤ 5 % in thickness ≤ 1,2 % in width ≤ 0,6 % in length Water absorption: Mean ≤ 7 % Max.≤9 %	Pass

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results	Test requirements	Verdict
Boiling Test	EN 15534-4:2014 Section 4.5.5 EN 15534-1:2014 Section 8.3.3	Water absorption in weight: Mean: 0.73 % Max.: 0.77 %	Water absorption in weight: Mean ≤ 7% Max. ≤ 9%	Pass

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results
Heat reversion	EN 15534-4:2014 Section 4.5.7 EN 15534-1:2014 Section 9.3 EN 479:2018	Test condition: 100°C, 6h Mean: -0.16 %

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Test Items	Test Method	Test Results	
Heat build-up	EN 15534-4:2014 Section 4.5.7 EN 15534-1:2014 Section 9.4	Set temperature rise for use in horizontal position:	50 °C
		Actual temperature rise for black control specimen:	51.0 °C
		Temperature of test specimen:	45.2 °C
		Predicted heat build-up ΔT:	-5.8 °C

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

EN 15534-4:2014 Composites made from cellulose-based materials and thermoplastics (usually called wood-polymer composites (WPC) or natural fibre composites (NFC)) Part 4: Specifications for decking profiles and tiles

Indenter: a hardened steel spherical body with diameter of 10 mm

Test load: Additional load of 2000N with preload of 20N

Indentation time: (25 ± 5) s

Recovery time: at least 24h

Test Items	Test Method	Test Results	
Resistance to indentation	EN 15534-4:2014 Section 4.5.7 EN 15534-1:2014 Section 7.5	Brinell hardness:	111 MPa
		Rate of elastic recovery:	55 %

Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Test Items, Method and Results:

Test Item: Fungi resistance test

Test item: ISO 16869:2008 Plastics - Assessment of the effectiveness of fungistatic compounds in plastics formulations

Test organisms:

Aspergillus niger ATCC 6275, Chaetomium globosum ATCC 6205, Paecilomyces variotii CBS 628.66, Penicillium funiculosum ATCC 9644, Trichoderma longibrachiatum ATCC 13631

Test condition: 21 days, Humidity > 90%RH, Temperature: 24°C

Rating evaluation:

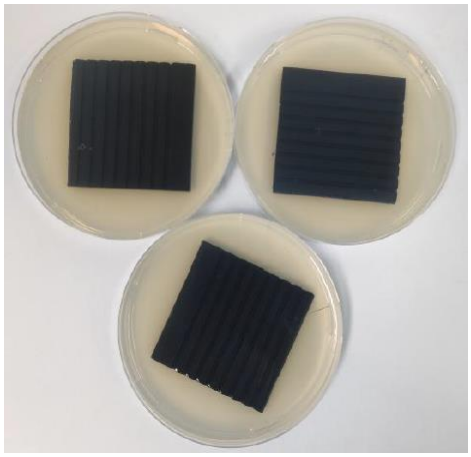
Rating	Growth	Interpretation
0	No growth	The material is resistant to fungal attack
1	Initial growth (compared with the rest of the agar surface)	The material is partially protected against fungal attack or generally not susceptible to such attack
2	Obvious growth and sporulation	The material is susceptible to fungal attack

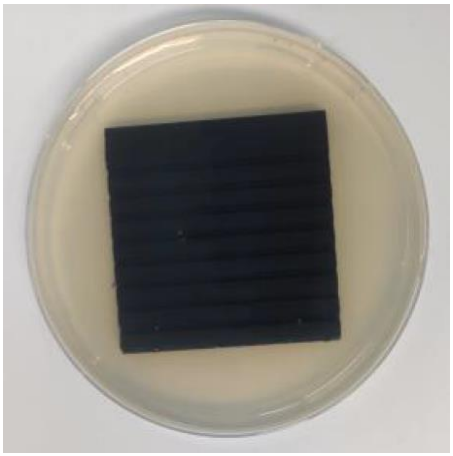
Test result:

Evaluation	Observed growth on specimens
Rating 0	No growth

Note: Test item was subcontracted on accreditation by CNAS L0823.

Test Photos:



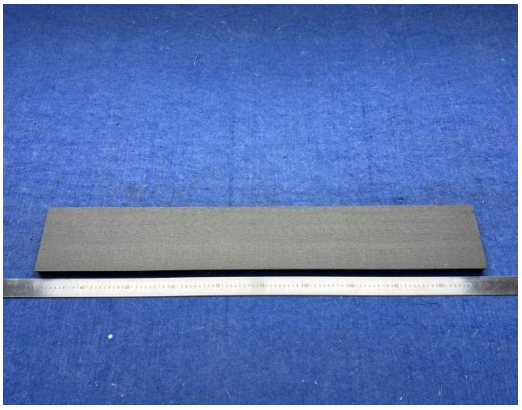


Test Report

Original Issue Date: 2024-05-07 Intertek Report No. 240307027SHF-011

Appendix A: Sample Received Photo

Front view



Back view

Section view

Revision:

NO.	Date	Changes
240307027SHF-011	2024-05-07	First issue