

# Zhejiang New Insight Material Technology Co., Ltd.

## TEST REPORT

**REPORT NUMBER**

181219007SHF-002

**ISSUE DATE**

2019/1/9

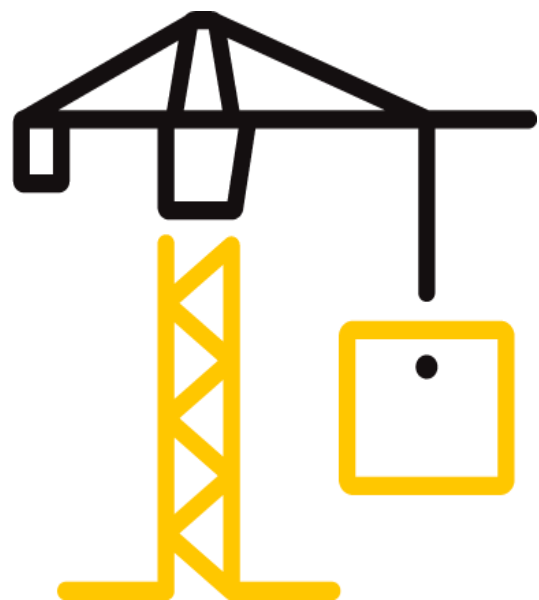
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## Test Report

Issue Date: 2019/1/9 Intertek Report No. 181219007SHF-002

Applicant: Zhejiang New Insight Material Technology Co., Ltd.

Applicant Address: No.72 Yongping North Road, Wukang Town, Deqing County, Zhejiang Province, China

Attn: Jianbin Jiang

**SUBJECT:** Performance testing  
SPC FLOORING

Dear Sir,

This test report represents the results of our evaluation of the above referenced product(s) to the requirements contained in the following standards:

TEST METHODS AND STANDARDS	
Refer to the next following Pages.	

SAMPLE ID	MODEL	SPECIFICATION
S181219007SHF.011~012,0 16,020	W103	1220*180*6.0mm
S181219007SHF.002	W103	1220*180*4.5mm
S181219007SHF.008	W111	300*300*4.5mm

SAMPLE RECEIVED: 2018/12/13  
TESTED FROM: 2018/12/19 TO 2019/1/9

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# Test Report

Issue Date: 2019/1/9

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**Test Items, Method and Results:**

Test Item: Determination of resistance to staining and chemicals

Test Method: EN 423:2001

Test Sample: S181219007SHF.012

Conditioning: Condition the test specimens at (23 ± 2)°C and (50 ± 5)% relative humidity for at least 24h

**Test Result:**

Staining materials	Duration of contact	Types of cleaning	Results	Index
White vinegar (5% acetic acid)	2 hours	cloth water	Not affected	0
Rubbing alcohol (70%isopropyl alcohol base)	2 hours	cloth water	Not affected	0
White mineral oil (medicinal grade)	2 hours	cloth water	Not affected	0
NaOH solution (5%)	2 hours	cloth water	Not affected	0
HCl (hydrochloric acid) solution (5%)	2 hours	cloth water	Not affected	0
H <sub>2</sub> SO <sub>4</sub> (sulfuric acid) solution (5%)	2 hours	cloth water	Not affected	0
Household ammonia solution (5% NH <sub>4</sub> OH)	2 hours	cloth water	Not affected	0
Household bleach (5.25% NaOCl)	2 hours	cloth water	Not affected	0
Disinfectant—phenol type (5%active phenol)	2 hours	cloth water	Not affected	0
Kerosene	2 hours	cloth water	Not affected	0

**Note:**

1. The reagents were specified by the applicant.

Interpretation and presentation of results as per EN 423:2001

Index	Effect of the test after cleaning/abrasion
0	Not affected
1	Very slightly affected
2	Slightly affected
3	Affected
4	Severely affected

## Test Report

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**Test Items, Method and Results:**

Test Item: Thermal conductivity and thermal resistance

Test Method: EN 12664:2001

Test Sample: S181219007SHF.008

Conditioning: Condition the test specimen at  $(23\pm 2)^{\circ}\text{C}$  and  $(50\pm 5)\%$  relative humidity to constant mass

Sample Specification: 300 mm (length) x 300 mm (width) x 4.5 mm (thickness)

## Test Result:

Sample	Thickness	Mean Temperature	Temperature Difference	Thermal Conductivity	Thermal Resistance
	(mm)	( $^{\circ}\text{C}$ )	( $^{\circ}\text{C}$ )	( $\text{W}/\text{m}\cdot\text{K}$ )	( $\text{m}^2\cdot\text{K}/\text{W}$ )
1	4.51	24.8	12.5	0.174	0.026
2	4.55	24.9	12.2	0.170	0.027
3	4.53	24.7	12.5	0.167	0.027
Average	4.53	25	12	0.170	0.027

## Test Report

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### Test Items, Method and Results:

Test Item: Colour fastness to artificial light  
Test Method: ISO 105-B02:2014, Xenon-arc lamp  
Exposure Cycle A1, Method 3  
Test Sample: S181219007SHF.011  
  
Test Result: Grade 6

# Test Report

Issue Date: 2019/1/9

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### Test Items, Method and Results:

Test Item: Castor chair test

Test Method: EN 425:2002

Test Sample: S181219007SHF.002

Conditioning: Condition the test specimens at  $(23 \pm 2)^\circ\text{C}$  and  $(50 \pm 5)\%$  relative humidity for at least 24h

Test Condition: At a temperature range of  $18^\circ\text{C}$  to  $25^\circ\text{C}$

Load mass: 90 kg

Test castors: Type W

Speed of rotating platform: 20 r/min

Speed of castor assembly: 50 r/min

Total test revolutions: 25000 r

Mounting of the specimen: Floating installation with click joint

### Test Result:

Type of damage	Observation (Yes/No)	Verdict
Delamination	No	Pass
Opening of joint	No	
Surface damage	No	
Crazing	No	

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### Test Items, Method and Results:

Test method: ISO 10140-3:2010+A1-2015

Test Sample: S181219007SHF.016

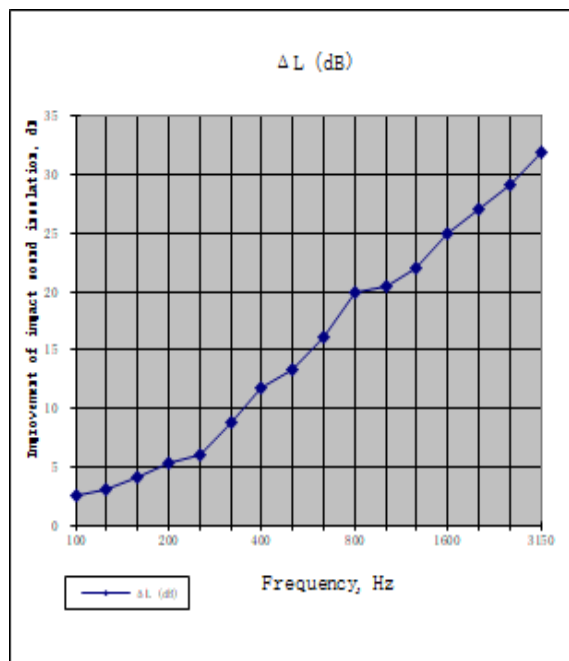
Temperature: 12 °C Relative Humidity: 70 %

Volume of the source room: 77 m<sup>3</sup> Volume of the receiving room: 112 m<sup>3</sup>  
(Length × Width × Height) (5.7m × 4.9m × 4.0m)

Specimen area: 12.5 m<sup>2</sup> Static pressure: 101.9 kPa

Floor assembly: The system consisted of 150mm thick concrete floor and the 6.0mm SPC FLOORING covering with 1.5mm underlayment (the density was 8.74 kg/m<sup>2</sup>) were placed on the concrete floor.

Frequency (Hz)	Ln (dB)	ΔL (dB)
100	57.6	2.5
125	62.3	3.1
160	62.8	4.2
200	61.3	5.3
250	63.2	6.1
315	61.3	8.8
400	62.8	11.8
500	63.1	13.4
630	64.0	16.2
800	62.8	19.9
1000	62.6	20.5
1250	62.3	22.1
1600	62.4	25.0
2000	61.8	27.1
2500	61.1	29.1
3150	60.6	32.0



Rating according to ISO 717-2:2013, the ΔL<sub>w</sub> was shown below.

Weighted improvement of impact sound insulation	ΔL <sub>w</sub> =	21 dB
Spectrum adaptation	C <sub>Δ</sub> =	-10 dB

Note:

1. These results are based on test made with an artificial source under laboratory conditions .
2. Ln,0 = Normalized Sound Pressure Level for Bare standard concrete floor  
 ΔL = Reduction of impact sound pressure level after floor covering  
 ΔL<sub>w</sub> = Weighted reduction of impact sound pressure level  
 C<sub>Δ</sub> = Spectrum adaptation term

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**Test Photo:**



Test Set Up



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### 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.

197 SVHCs Testing Results:

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

No.	Chemical Substance	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, 25637-99-4)	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 <sub>10-13</sub> )	85535-84-8	ND

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

No.	Chemical Substance	CAS No.	Results %(w/w)
16	Lead Chromate Δ	7758-97-6	ND
17	Lead Chromate Molybdate Sulphate Red (C.I. Pigment Red 104) Δ	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

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21	Diisobutyl Phthalate (DIBP)	84-69-5	ND
22	Coal Tar Pitch, High Temperature	65996-93-2	ND
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.	Chemical Substance	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.	Chemical Substance	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

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

No.	Chemical Substance	CAS No.	Results %(w/w)
45	Strontium Chromate $\Delta$	7789-06-2	ND
46	2-ethoxyethyl acetate (2-EEA)	111-15-9	ND
47	1,2-Benzenedicarboxylic acid, di-C <sub>7-11</sub> -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 <sub>6,8</sub> -branched alkyl esters, C <sub>7</sub> -rich (DIHP)	71888-89-6	ND

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

No.	Chemical Substance	CAS No.	Results %(w/w)
52	Lead dipicrate $\Delta$	6477-64-1	ND
53	Lead styphnate $\Delta$	15245-44-0	ND
54	Lead azide; Lead diazide $\Delta$	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 $\Delta$	3687-31-8	ND
59	Calcium arsenate $\Delta$	7778-44-1	ND
60	Arsenic acid $\Delta$	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 $\Delta$	49663-84-5	ND
68	Potassium hydroxyoctaoxodizincate di-chromate $\Delta$	11103-86-9	ND
69	Dichromium tris(chromate) $\Delta$	24613-89-6	ND
70	Aluminosilicate Refractory Ceramic Fibres $\Delta$	(Index No. 650-017-00-8)	ND
71	Zirconia Aluminosilicate Refractory Ceramic Fibres $\Delta$	(Index No. 650-017-00-8)	ND

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

No.	Chemical Substance	CAS No.	Results %(w/w)
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	ND
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 ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	6786-83-0	ND
84	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)]	561-41-1	ND

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

No.	Chemical Substance	CAS No.	Results %(w/w)
85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	ND
86	Pentacosafuorotridecanoic acid	72629-94-8	ND
87	Tricosafuorododecanoic acid	307-55-1	ND
88	Henicosafuoroundecanoic acid	2058-94-8	ND
89	Heptacosafuorotetradecanoic 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 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	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

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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
104	Silicic acid, lead salt Δ	11120-22-2	ND
105	Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), 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

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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
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.	Chemical Substance	CAS No.	Results %(w/w)
139	Cadmium $\Delta$	7440-43-9	ND
140	Cadmium oxide $\Delta$	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.	Chemical Substance	CAS No.	Results %(w/w)
145	Cadmium sulphide $\Delta$	1306-23-6	ND
146	Lead di(acetate) $\Delta$	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

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

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

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

No.	Chemical Substance	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 $\Delta$	7790-79-6	ND
160	Cadmium sulphate $\Delta$	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.	Chemical Substance	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 $\geq$ 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



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

No.	Chemical Substance	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.	Chemical Substance	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.	Chemical Substance	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

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

No.	Chemical Substance	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.	Chemical Substance	CAS No.	Results %(w/w)
175	Benz[a]anthracene	56-55-3	ND
176	Cadmium nitrate $\Delta$	10325-94-7	ND
177	Cadmium carbonate $\Delta$	513-78-0	ND
178	Cadmium hydroxide $\Delta$	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"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	--	ND
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with $\geq 0.1\%$ w/w 4-heptylphenol, branched and linear]	--	ND

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

No.	Chemical Substance	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

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(t) The Twentieth List (6 SVHC Proposed in Sep, 2018)

No.	Chemical Substance	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	Undecafluorohexanoic acid and its ammonium salt	307-24-4;21615-47-4	ND

Reporting limit = 0.050% (whole product)

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

Notes:

1. Substances of very high concern (SVHC) are classified as:
  - a. Carcinogenic, mutagenic or toxic to reproduction category 1 (proven on humans) and category 2 (proven on animals)
  - b. Persistent, bioaccumulative and toxic chemicals (PBT)
  - c. Very persistent and very bioaccumulative chemicals (vPvB)
  - d. Other similar substances such as endocrine disrupters
  
2. If the imported or manufactured volume of each individual SVHC in article is more than 0.1% (w/w) and if it exceeds 1 tonne per year across all product ranges, then importer or manufacturer require notification to the European Chemical Agency (ECHA). For substances included in the Candidate List on or after 1 December 2010, the notifications have to be submitted no later than 6 months after the inclusion. The following information has to be submitted for notification:
  - a. Identification of the registrant and the substance
  - b. Classification and labelling of the substance
  - c. Description of use of the substance and the article
  - d. Registration number, if available
  - e. Tonnage range
  
3. As per article 31 of regulation (EC) No. 1907/2006 (REACH), suppliers of mixtures not classified as dangerous according to directive 1999/45/EC have to provide the recipients, at their request, with a safety data sheet if the mixtures contain at least one substance on the SVHC candidate list and its individual concentration is 0.1%(w/w) or above for non-gaseous preparations.

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### REACH requirement:

As per article 33(1) of regulation (EC) No. 1907/2006 (REACH), recipients of product must be provided with information of safe use if any of the tested substances (SVHC) exceeded 0.1% (w/w). A product meets the requirement of article 33(1) by default when no SVHC exceeds 0.1% (w/w).

### Conclusion:

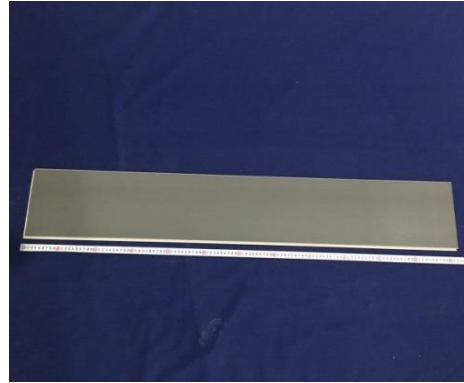
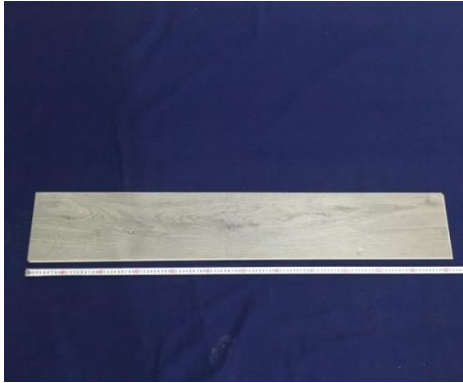
Tested Samples	Standard	Result
Submitted sample	EU REACH Regulation No 1907/2006 Article 33(1) Obligation to provide information of safe use (see REACH requirement in report for details)	Meet Requirement

## Test Report

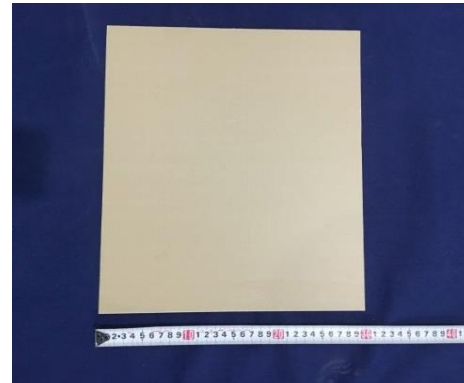
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### APPENDIX: SAMPLE RECEIVED PHOTO

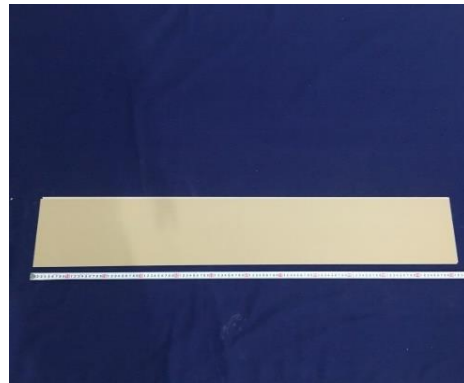


Front View (S181219007SHF.011~012,016,020) Back View (S181219007SHF.011~012,016,020)



Front View (S181219007SHF.008)

Back View (S181219007SHF.008)



Front View (S181219007SHF.002)

Back View (S181219007SHF.002)

### REPORT AUTHORIZED

When signed with physical or electronic signature, the contents of this report have been prepared and approved per Intertek's quality process in accordance with ISO 17025.

*Torres Qi*  
 Name: Torres Qi  
 Title: Reviewer



*Kyle Wang*  
 Name: Kyle Wang  
 Title: Project Engineer

### Revision:

NO.	DATE	CHANGES	AUTHOR	REVIEWER
181219007SHF-002	2019/1/9	First issue	Kyle Wang	Torres Qi