Intertek Consumer Goods GmbH · Würzburger Straße 152 · 90766 Fürth · Germany

Multipanel UK
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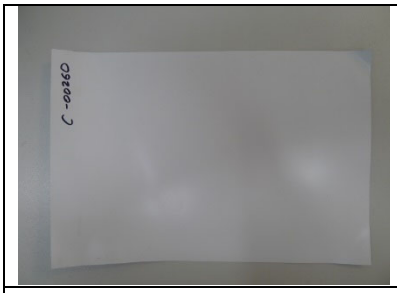
Fürth, February 16/2022

TEST REPORT No. FUHLCP2021-11328

Date sample received: December 28/2021
Date reorder received: February 4/2022
Period of testing: February 8/2022 – February 15/2022
Technical Director: Kerstin Scharrer

Sample description: Aluminium plate C-00260, coated
Aluminium plate C-00473, coated
Plastic cured

		
Part No. 1A + 1B	**Part No. 2A + 2 B**	**Part No. 3**

Note:
According to the customer, the white coating material as well as the aluminium material could not be provided as individual materials. Due to lack of material and insufficient separability, the following wet chemical tests could not be carried out:
- Testing of Phthalates, Risk Package F and Tin Organic Compounds on Parts No. 1 B and 2 B.

The following evaluation only refers to the tests that could be carried out.

- Test results see next pages -

Overall conclusion:

Pass	Fail
X	

In terms of the test plan carried out, the article complies with the requirements of RoHS Directive 2011/65/EC and Directive (EU) 2015/863.

Report Summary

Parameter	Conclusion	Part No.	Note
Lead (Pb)	pass		
Mercury (Hg)	pass		
Cadmium (Cd)	pass		
Hexavalent Chromium (Cr VI)	pass		
Polybrominated flame retardants (PBB/ PBDE)	pass		
Phthalates (DIBP/ DBP/ BBP/ DEHP)	pass		

Overall conclusion:

Pass	Fail
X	

In terms of the test plan carried out, the article complies with the requirements of REACh Regulation (EU) 1907/2006 Annex XVII and POP Regulation (EU) 2019/1021

Report Summary

Parameter	Conclusion	Part No.	Note
Cadmium (Cd)	pass		
Tin organic compounds (DBT/ TBT/ DOT/ TPhT/ TMT/ TBPhT/ TOT/ TCHT)	pass		
Short chain chloroparaffins C_{10}-C_{13} (SCCP)	pass		
Hexabromocyclododecane (HBCDD)	pass		

Conclusion in terms of the selected risk substances according to SVHC Candidate list dated 17th of January 2022

Conclusion for the sample tested according to SVHC Risk Package F:
The sample was tested for the most likely expectable SVHC only. None of the analysed SVHC were detected in a concentration over 0.1%. In all probability the tested sample contains no SVHC over 0.1% and thus no obligations according to article 33 of the REACH-regulation would arise.

Abbreviations:

LOQ = Limit of quantification
LOD = Limit of detection
n.d. = not determinable
CS = Combined sample
* = Test method is not part of the accreditation scope
** = Outsourcing
# = Subsequent delivery
n.a. = not applicable

nM = Non Metal
M = Metal
cM = Composite sample
BL = Below limit
OL = Over limit
X = Inconclusive
σ = Standard deviation

List of component parts:

Method: Disassembly, disjointment and mechanical sample preparation according to DIN EN 62321-2:2014-09

Sample No.	Part No.	Material	Description
203257 A	**1 A**	M	Aluminium plate C-00260, base material
203257 B	**1 B**	nM	Aluminium plate C-00260, coating
203258 A	**2 A**	M	Aluminium plate C-00473, base material
203258 B	**2 B**	nM	Aluminium plate C-00473, coating
203259	**3**	nM	Plastic cured

Note: Results were obtained by EDXRF for primary screening. Additional chemical testing using ICP (for Cd, Pb), AAS (for Hg), IC-UC/VIS (for CrVI) and GC/MS (for PBBs/PBDEs) are recommended, if the concentration exceeds the below warning value according to DIN EN 62321-3-1:2014-10.

Element	Unit	Non metal	Metal
Cd	mg / kg	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL	BL ≤ (70-3σ) < X < (130+3σ) ≤ OL
Pb	mg / kg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL
Hg	mg / kg	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL	BL ≤ (700-3σ) < X < (1300+3σ) ≤ OL
Br	mg / kg	BL ≤ (300-3σ) < X	--
Cr	mg / kg	BL ≤ (700-3σ) < X	BL ≤ (700-3σ) < X

Element	Unit	Composite material
Cd	mg / kg	LOD < X < (150+3σ) ≤ OL
Pb	mg / kg	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Hg	mg / kg	BL ≤ (500-3σ) < X < (1500+3σ) ≤ OL
Br	mg / kg	BL ≤ (250-3σ) < X
Cr	mg / kg	BL ≤ (500-3σ) < X

1. XRF screening

Method: XRF according to DIN EN 62321-3-1:2014-10*

Sample No.	Part No.	Pb	Hg	Cd	Cr_{total}	Br	Status
203257 A	**1 A**	BL	BL	BL	BL	--	pass
203257 B	**1 B**	BL	BL	BL	BL	BL	pass
203258 A	**2 A**	BL	BL	BL	BL	--	pass
203258 B	**2 B**	BL	BL	BL	BL	BL	pass
203259	**3**	BL	BL	BL	BL	BL	pass

2. Phthalates in mg/kg

Test method: 12.01.02.04_Phthalate:2021-08 / DIN EN 62321-8:2017-12 mod.
LOQ: 50 mg/kg respectively as stated

Parameter	Abbrev.	CAS- No.	Sample No. 203259 Part No. 3
Diisobutylphthalate	DIBP	84-69-5	<50
Dibutylphthalate	DBP	84-74-2	<50
Benzylbutylphthalate	BBP	85-68-7	<50
Bis-(2-ethylhexyl)phthalate	DEHP	117-81-7	90
Status	**Phthalate**		**pass**

Assessment criteria

Elements	RoHS-limit value
Lead (Pb)	1000 mg/kg
Mercury (Hg)	1000 mg/kg
Cadmium (Cd)	100 mg/kg
Chromium VI (Cr VI)	1000 mg/kg
Polybrominated Biphenyle (PBBs)	1000 mg/kg
Polybrominated Diphenyl ether (PBDEs)	1000 mg/kg
Phthalates (DIBP/ DBP/ BBP/ DEHP each)	1000 mg/kg

3. Selected risk substances according to SVHC Candidate list dated 8th of July 2021
Test results in %

Test method: Phthalate: 12.01.02.04_Phthalate (2021-08); SCCP: 12.01.03.01_SCCP in materials (2021-08); NP+APEO: 12.01.13.01_AP+APEO in materials (2019-12)
Other parameters: Extraction with organic solvent, measurement GC/MS* and HPLC* resp.
LOQ: 0.02% %; respectively as stated

Substance name: SVHC Risk Package F	CAS-No.	Sample No. 203259 Part No. 3
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	< 0.05
Hexabromocyclododecane (HBCDD)	various	< 0.003
Tris(2-chloroethyl)phosphate (TCEP)	115-96-8	< 0.05
Dechloran Plus	various	< 0.05
Diisobutylphthalate (DIBP)	84-69-5	< 0.05
Dibutylphthalate (DBP)	84-74-2	< 0.05
Benzylbutylphthalate (BBP)	85-68-7	< 0.05
Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7	< 0.05
4-Nonylphenol, branched and linear	various	< 0.05
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	< 0.05
2-benzotriazol-2-yl-4,6di-tertbutylphenol (UV-320)	3846-71-7	< 0.05
2,4-di-tert-butyl-6- (5-chloro benzotriazol-2-yl) phenol (UV-327)	3864-99-1	< 0.05
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	< 0.05
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	< 0.05
2-Methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	< 0.05
Short chain chloroparaffins C_{10}-C_{13} (SCCP)	various	< 0.05
Medium chain chloroparaffins C14-C17 (MCCP)	85535-85-9	< 0.05
Tert-butylphenol	98-54-4	< 0.05
Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	< 0.05
Bisphenol A	80-05-7	< 0.05
2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	< 0.05

4. Tin Organic Compounds in mg/kg

Test method: Materials acc. to DIN CEN ISO/TS 16179 (2012-12)
LOQ: 0.1 mg/kg respectively as stated

Parameter	Abbrev.	CAS-No.	Sample No. 203259 Part No. 3
Dibutyl tin	DBT	various	< 0.1
Tributyl tin	TBT	various	< 0.1
Di-octyl tin	DOT	various	< 0.1
Triphenyl tin	TPhT	various	< 0.1
Trimethyl tin	TMT	various	< 0.1
Tributylphenyl tin	TBPhT	960-16-7	< 0.1
Trioctyl tin	TOT	various	< 0.1
Tri-cyclohexyl tin	TCHT	various	< 0.1

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General note:

End of report