



Test Report

Report No.: GTS2108120494EN

Job No.:32871

Date: August 19, 2021

Represented by : ASTA TOOLS LIMITED COMPANY
Sample Name : Solder ring
Sample Model : SST-S11/SST-S21/SST-S31/SST-S41
Sample Receive Date : August 12, 2021
Sample Testing Period : August 12, 2021---August 19, 2021
Test Result Summary :

As requested by the applicant, for details refer to attached page(s).

TEST ITEM(S)	TEST REQUESTED	CONCLUSION(S)
Pb, Cd, Hg, CrVI, PBBs, PBDEs and Phthalates(DBP, BBP, DEHP, DIBP) content	RoHS Directive 2011/65/EU and its amendment (EU) 2015/863	PASS

* Applicant,address,sample name and model information have been provided by the customer.GTS is not responsible for its authenticity.

and on behalf of
Shanghai Global Testing Services Co., Ltd.

Authorized Signature  

Edna Yang
Approved Signatory -GTS/SHO

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This report is only responsible for the tested sample(s) from the client, the testing result(s) is used for scientific research, teaching or internal quality control. Without the writing agreement of the company, the client is not allowed to copy the report in part(entire copy is excepted).

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Test Result(s):

Test Sample Description:

Material No.	Material Description
<u>01</u>	Transparent plastic pipe
<u>02</u>	Silvery metal

RoHS(Pb, Cd, Hg, CrVI, PBBs, PBDEs and Phthalates(DBP, BBP, DEHP, DIBP))

Test Method: Lead(Pb), Cadmium(Cd) –IEC 62321-5: 2013
Mercury(Hg) –IEC 62321-4: 2013+AMD1:2017
Chromium VI(CrVI) –IEC 62321-7-2: 2017
Chromium VI(CrVI) –IEC 62321-7-1: 2015
PBBs, PBDEs –IEC 62321-6: 2015
DBP, BBP, DEHP, DIBP –IEC 62321-8: 2017



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Test item(s)	Limit	Unit	MDL	Result(s)
				01
Lead(Pb)	1000	mg/kg	2	174
Cadmium(Cd)	100	mg/kg	2	N.D.
Mercury(Hg)	1000	mg/kg	2	N.D.
Chromium VI(CrVI)	1000	mg/kg	2	N.D.
Dibutyl phthalate(DBP)	1000	mg/kg	50	N.D.
Butyl benzyl phthalate(BBP)	1000	mg/kg	50	N.D.
Di-2-ethylhexyl phthalate(DEHP)	1000	mg/kg	50	146
Di-iso-butyl phthalate(DIBP)	1000	mg/kg	50	N.D.
Monobromobiphenyls	--	mg/kg	5	N.D.
Dibromobiphenyls	--	mg/kg	5	N.D.
Tribromobiphenyls	--	mg/kg	5	N.D.
Tetrabromobiphenyls	--	mg/kg	5	N.D.
Pentabromobiphenyls	--	mg/kg	5	N.D.
Hexabromobiphenyls	--	mg/kg	5	N.D.
Heptabromobiphenyls	--	mg/kg	5	N.D.
Octabromobiphenyls	--	mg/kg	5	N.D.
Nonabromobiphenyls	--	mg/kg	5	N.D.
Decabromobiphenyl	--	mg/kg	5	N.D.
Group PBBs	1000	mg/kg	--	N.D.
Monobromodiphenyl ethers	--	mg/kg	5	N.D.
Dibromodiphenyl ethers	--	mg/kg	5	N.D.
Tribromodiphenyl ethers	--	mg/kg	5	N.D.
Tetrabromodiphenyl ethers	--	mg/kg	5	N.D.
Pentabromodiphenyl ethers	--	mg/kg	5	N.D.
Hexabromodiphenyl ethers	--	mg/kg	5	N.D.
Heptabromodiphenyl ethers	--	mg/kg	5	N.D.
Octabromodiphenyl ethers	--	mg/kg	5	N.D.
Nonabromodiphenyl ethers	--	mg/kg	5	N.D.
Decabromodiphenyl ether	--	mg/kg	5	N.D.
Group PBDEs	1000	mg/kg	--	N.D.
Conclusion(s)				PASS



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Test item(s)	Limit	Unit	MDL	Result(s)
				02
Lead(Pb)	1000	mg/kg	2	76
Cadmium(Cd)	100	mg/kg	2	N.D.
Mercury(Hg)	1000	mg/kg	2	N.D.
Chromium VI(CrVI)	---	µg/cm ²	0.10	N.D.
Dibutyl phthalate(DBP)	1000	mg/kg	50	N.D.
Butyl benzyl phthalate(BBP)	1000	mg/kg	50	N.D.
Di-2-ethylhexyl phthalate(DEHP)	1000	mg/kg	50	N.D.
Di-iso-butyl phthalate(DIBP)	1000	mg/kg	50	N.D.
Monobromobiphenyls	--	mg/kg	5	N.D.
Dibromobiphenyls	--	mg/kg	5	N.D.
Tribromobiphenyls	--	mg/kg	5	N.D.
Tetrabromobiphenyls	--	mg/kg	5	N.D.
Pentabromobiphenyls	--	mg/kg	5	N.D.
Hexabromobiphenyls	--	mg/kg	5	N.D.
Heptabromobiphenyls	--	mg/kg	5	N.D.
Octabromobiphenyls	--	mg/kg	5	N.D.
Nonabromobiphenyls	--	mg/kg	5	N.D.
Decabromobiphenyl	--	mg/kg	5	N.D.
Group PBBs	1000	mg/kg	--	N.D.
Monobromodiphenyl ethers	--	mg/kg	5	N.D.
Dibromodiphenyl ethers	--	mg/kg	5	N.D.
Tribromodiphenyl ethers	--	mg/kg	5	N.D.
Tetrabromodiphenyl ethers	--	mg/kg	5	N.D.
Pentabromodiphenyl ethers	--	mg/kg	5	N.D.
Hexabromodiphenyl ethers	--	mg/kg	5	N.D.
Heptabromodiphenyl ethers	--	mg/kg	5	N.D.
Octabromodiphenyl ethers	--	mg/kg	5	N.D.
Nonabromodiphenyl ethers	--	mg/kg	5	N.D.
Decabromodiphenyl ether	--	mg/kg	5	N.D.
Group PBDEs	1000	mg/kg	--	N.D.
Conclusion(s)				PASS



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- Note1:**
1. MDL = Method Detection Limit.
 2. N.D. = Not detected, less than MDL.
 3. According to IEC 62321-7-1: 2015, result on Cr(VI) for metal sample is shown as Negative, Inconclusive or Positive:
Negative = Absence of Cr(VI), Inconclusive = Maybe exist Cr(VI), Positive = Presence of Cr(VI).

Colorimetric result (Cr(VI) concentration)	Qualitative result
The sample solution is < the 0.10 ug/cm ² equivalent comparison standard solution	The sample is negative for Cr(VI)–The Cr(VI) concentration is below the limit of quantification. The coating is considered a non-Cr(VI) based coating.
The sample solution is ≥ the 0.10 ug/cm ² and ≤ the 0.13 ug/cm ² equivalent comparison standard solutions	The result is considered to be inconclusive - Unavoidable coating variations may influence the determination. Recommendation: if addition samples are available, perform a total of 3 trials to increase sampling surface area. Use the averaged result of the 3 trials for the final determination.
The sample solution is > the 0.13 ug/cm ² equivalent comparison standard solution	The sample is positive for Cr(VI)–The Cr(VI) concentration is above the limit of quantification and the statistical margin of error. The sample coating is considered to contain Cr(VI).

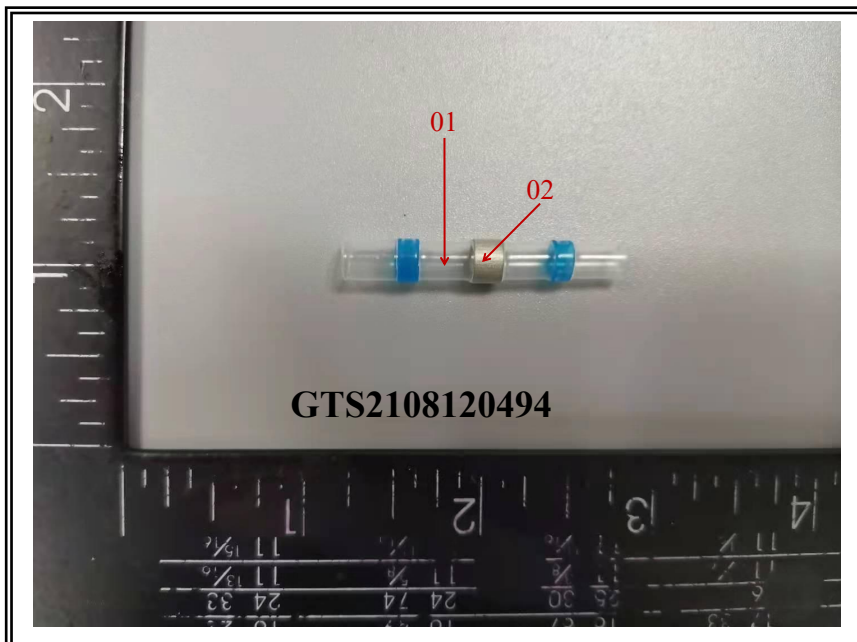
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Sample Photo(s):



GTS authenticate the photo(s) on original report only

End of Report