



中国认可
国际互认
检测
TESTING
CNAS L4136



WTH23H01000583C



检测报告(Test Report)

报告编号(Report No.): WTH23H01000583C

日期(Date): 2023/1/7

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委托单位: 东莞市美昕龙五金塑胶制品有限公司 / 深圳市美德龙五金塑胶制品有限公司

Applicant: Dongguan MeiXinLong Hardware Products Co.,Ltd / Shenzhen Meldlon Hardware Products Co.,Ltd

单位地址: 东莞市凤岗镇雁田村怡安工业城 56B 座厂房/深圳市宝安区宝源路深圳名优工业产品展示中心 B 座 1 区 401

Address: Building 56B, Yi an industrial park, Yantian village, Feng gang town, Dongguang / 401, 1 Area ,Building B, the center of Shenzhen
famous brand industry product, Baoyuan Road , Bao an Diserict Shenzhen

样品信息(Sample Information):

样品名称(Sample Name): 请参见后续页(Please refer to following page(s).)

样品型号(Sample Model): 请参见后续页(Please refer to following page(s).)

样品材质(Sample Material): 请参见后续页(Please refer to following page(s).)

委托日期(Sample Received Date): 2023/1/3

检测日期(Testing Period): 2023/1/3 - 2023/1/7

检测结果(Test Result): 请参见后续页(Please refer to following page(s).)

检测要求(Test Requested):

1. 根据客户要求, 参照欧盟 RoHS 指令 2011/65/EU 及其修订指令 EU 2015/863, 检测样品中的铅、镉、汞、六价铬、多溴联苯、多溴二苯醚、DBP、BBP、DEHP、DIBP 的含量(As specified by client, to determine the Pb, Cd, Hg, Cr(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP content in the sample with reference to EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863.)

结论(Conclusion)

合格(PASS)

授权签字人

Signed for and on behalf of HCT

黄胜明 Michael Huang

黄胜明 Michael Huang





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序号(No.)	样品名称(Sample Name):	样品型号(Sample Model):	样品材质(Sample Material):
1	胶壳 1	JDC 系列模块电源连接器	PBT
2	胶壳 2	JDC 系列模块电源连接器	PET
3	电镀插针 1	JDC 系列模块电源连接器	黄铜镀银
4	电镀插针 2	JDC 系列模块电源连接器	黄铜镀金
5	电镀插针 3	JDC 系列模块电源连接器	紫铜镀银
6	电镀插针 4	JDC 系列模块电源连接器	碲铜镀银
7	冠簧 1	JDC 系列模块电源连接器	铍铜镀银
8	冠簧 2	JDC 系列模块电源连接器	铍铜镀金
9	定位爪	JDC 系列模块电源连接器	铍铜

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检测结果(Test Result(s)):

单位(Unit): mg/kg

检测项目 (Test Items)	检测方法/仪器 (Test Method/ Equipment)	方法 检出限 (MDL)	含量 (Content)		EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863
			1	2	
铅 Lead(Pb)	IEC 62321-5:2013.	2	N.D.	N.D.	1000
镉 Cadmium(Cd)	ICP-OES/AAS	2	N.D.	N.D.	100
汞 Mercury(Hg)	IEC 62321-4:2013 +AMD1:2017. ICP-OES	2	N.D.	N.D.	1000
六价铬 Hexavalent Chromium(Cr(VI))	IEC 62321-5:2013/ IEC 62321-7-2:2017. ICP-OES/AAS UV-VIS	8	N.D.	N.D.	1000
一溴联苯 Mono-bromobiphenyl	IEC 62321-6:2015. GC-MS	5	N.D.	N.D.	1000
二溴联苯 Di-bromobiphenyl		5	N.D.	N.D.	
三溴联苯 Tri-bromobiphenyl		5	N.D.	N.D.	
四溴联苯 Tetra-bromobiphenyl		5	N.D.	N.D.	
五溴联苯 Penta-bromobiphenyl		5	N.D.	N.D.	
六溴联苯 Hexa-bromobiphenyl		5	N.D.	N.D.	
七溴联苯 Hepta-bromobiphenyl		5	N.D.	N.D.	
八溴联苯 Octa-bromobiphenyl		5	N.D.	N.D.	
九溴联苯 Nona-bromobiphenyl		5	N.D.	N.D.	
十溴联苯 Deca-bromobiphenyl		5	N.D.	N.D.	
多溴联苯 Polybrominated Biphenyls(PBBs)		—	N.D.	N.D.	
一溴二苯醚 Mono-bromodiphenyl ether		5	N.D.	N.D.	
二溴二苯醚 Di-bromodiphenyl ether		5	N.D.	N.D.	
三溴二苯醚 Tri-bromodiphenyl ether		5	N.D.	N.D.	
四溴二苯醚 Tetra-bromodiphenyl ether	5	N.D.	N.D.		
五溴二苯醚 Penta-bromodiphenyl ether	5	N.D.	N.D.		
六溴二苯醚 Hexa-bromodiphenyl ether	5	N.D.	N.D.		
七溴二苯醚 Hepta-bromodiphenyl ether	5	N.D.	N.D.		
八溴二苯醚 Octa-bromodiphenyl ether	5	N.D.	N.D.		
九溴二苯醚 Nona-bromodiphenyl ether	5	N.D.	N.D.		
十溴二苯醚 Deca-bromodiphenyl ether	5	N.D.	N.D.		
多溴二苯醚 Polybrominated Diphenyl Ethers(PBDEs)	—	N.D.	N.D.	1000	





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检测项目 (Test Items)	检测方法/仪器 (Test Method/ Equipment)	方法检出限 (MDL)	含量 (Content)		EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863
			1	2	
邻苯二甲酸二正丁酯 Dibutyl phthalate (DBP)	IEC 62321-8:2017, GC-MS	30	N.D.	N.D.	1000
邻苯二甲酸丁苄酯 Butylbenzyl phthalate (BBP)		30	N.D.	N.D.	1000
邻苯二甲酸二(2-乙基己基)酯 Di-(2-ethylhexyl) Phthalate (DEHP)		30	N.D.	N.D.	1000
邻苯二甲酸二异丁酯 Di-iso-butyl phthalate (DIBP)		30	N.D.	N.D.	1000

检测项目 (Test Items)	检测方法/仪器 (Test Method/ Equipment)	方法检出限 (MDL)	EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863
铅 Lead(Pb)	IEC 62321-5:2013. ICP-OES/AAS	2	1000
镉 Cadmium(Cd)		2	100
汞 Mercury(Hg)	IEC 62321-4:2013 +AMD1:2017. ICP-OES	2	1000

检测项目 (Test Items)	含量(Content)			
	3	4	5	6
铅 Lead(Pb)	15595 [◇]	10588 [◇]	34	50
镉 Cadmium(Cd)	16	8	N.D.	N.D.
汞 Mercury(Hg)	N.D.	N.D.	N.D.	N.D.

检测项目 (Test Items)	含量(Content)		
	7	8	9
铅 Lead(Pb)	44	21	12
镉 Cadmium(Cd)	N.D.	N.D.	N.D.
汞 Mercury(Hg)	N.D.	N.D.	N.D.





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检测项目 (Test Item)	检测方法/仪器 (Test Method/Equipment)	方法检出限 (MDL) ($\mu\text{g}/\text{cm}^2$)	EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863
六价铬 Hexavalent Chromium(Cr(VI)) \blacklozenge	IEC 62321-7-1:2015. UV-VIS	0.10	—

样品序号 (Sample No.)	结果(Result) ($\mu\text{g}/\text{cm}^2$)	定性结果 (Qualitative Result)
3	N.D.	阴性(Negative)
4	N.D.	阴性(Negative)
5	N.D.	阴性(Negative)
6	N.D.	阴性(Negative)
7	N.D.	阴性(Negative)
8	N.D.	阴性(Negative)
9	N.D.	阴性(Negative)

备注(Note):

“—”=Not regulated 无规定

mg/kg (milligram per kilogram 毫克每千克) = ppm (parts per million 百万分之)

MDL=Method Detection Limit 方法检出限

N.D.=Not Detected(less than method detection limit), 未检出 (小于方法检出限)

Results shown as N.D. are ignored in the sum calculation.结果显示为 N.D.不计入总和的计算。

The detected Chromium (Cr) content is "N.D.", therefore, the Hexavalent Chromium (Cr (VI)) content is "N.D.", No need for validation test of the Hexavalent Chromium (Cr (VI)).检测的铬 (Cr) 含量是 “N.D.”, 则六价铬 (Cr(VI)) 含量也是 “N.D.”, 不需要进行六价铬 (Cr(VI)) 的确认性测试。

If Chromium (Cr) content exceeds Hexavalent Chromium (Cr (VI)) method detection limit, Validation test of the Hexavalent Chromium (Cr (VI)) is required.

若铬 (Cr) 含量超过六价铬 (Cr(VI)) 方法检出限, 需要进行六价铬 (Cr(VI)) 的确认性测试。

根据客户提供的声明, 样品 (基材) 中的铅(Pb)被欧盟 RoHS 指令 2011/65/EU 及其修订指令 EU 2015/863 豁免, 相应豁免条文为(According to the declaration from the client, Lead(Pb) in specimen(s) (Substrate) is(are) exempted by EU RoHS Directive 2011/65/EU and its amendment Directive EU 2015/863 base on):

\blacklozenge 6(c) 在铜合金中铅含量不超过 4%(Copper alloy containing up to 4 % lead by weight.)。

\blacklozenge = a. 当六价铬的浓度高于 $0.13\mu\text{g}/\text{cm}^2$ 时, 样品为阳性, 即含有六价铬;

b. 当六价铬的浓度为 N.D.(低于 $0.10\mu\text{g}/\text{cm}^2$) 时, 样品为阴性, 即未检测到六价铬;





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c. 当六价铬的浓度介于 $0.10\mu\text{g}/\text{cm}^2$ 与 $0.13\mu\text{g}/\text{cm}^2$ 之间时, 无法直接判定是否检测到六价铬, 因不同个体的样品表面差异可能会影响测定结果;

由于未获知样品的存储条件和生产日期, 样品的六价铬检测结果仅能代表检测时样品含六价铬的状态。

a. The sample is positive for Cr(VI) if the Cr(VI) concentration is greater than $0.13\mu\text{g}/\text{cm}^2$. The sample coating is considered to contain Cr(VI);

b. The sample is negative for Cr(VI) if Cr(VI) is N.D. (concentration less than $0.10\mu\text{g}/\text{cm}^2$). The coating is considered a non-Cr(VI) based coating;

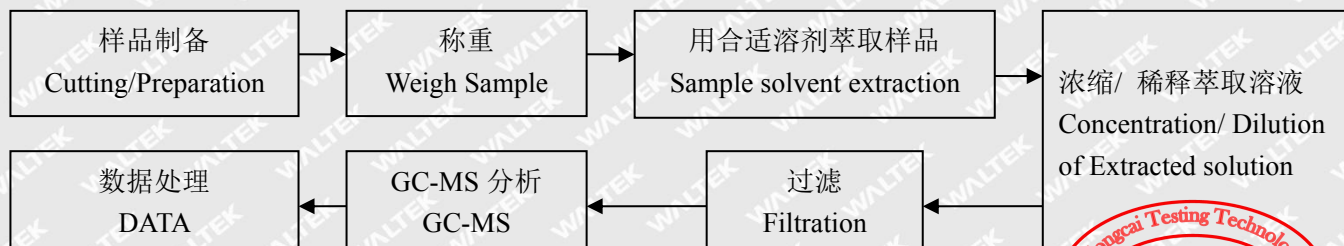
c. The result between $0.10\mu\text{g}/\text{cm}^2$ and $0.13\mu\text{g}/\text{cm}^2$ is considered to be inconclusive -unavoidable coating variations may influence the determination;

Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

样品描述(Sample Description):

序号 (No.)	HCT 样品 ID (HCT Sample ID)	检测点描述 (Test Part Description)		
1	WTH23H01000583C.1	1	黑色塑胶	Black plastic
2	WTH23H01000583C.2	2	黑色塑胶	Black plastic
3	WTH23H01000583C.3	3	银白色金属	Silver white metal
4	WTH23H01000583C.4	4	金色金属	Golden Metal
5	WTH23H01000583C.5	5	银白色金属	Silver white metal
6	WTH23H01000583C.6	6	银白色金属	Silver white metal
7	WTH23H01000583C.7	7	银白色金属	Silver white metal
8	WTH23H01000583C.8	8	金色金属	Golden Metal
9	WTH23H01000583C.9	9	铜色金属	Copper metal

DBP, BBP, DEHP, DIBP 的检测流程图 (Test Flow Chart for DBP, BBP, DEHP, DIBP)





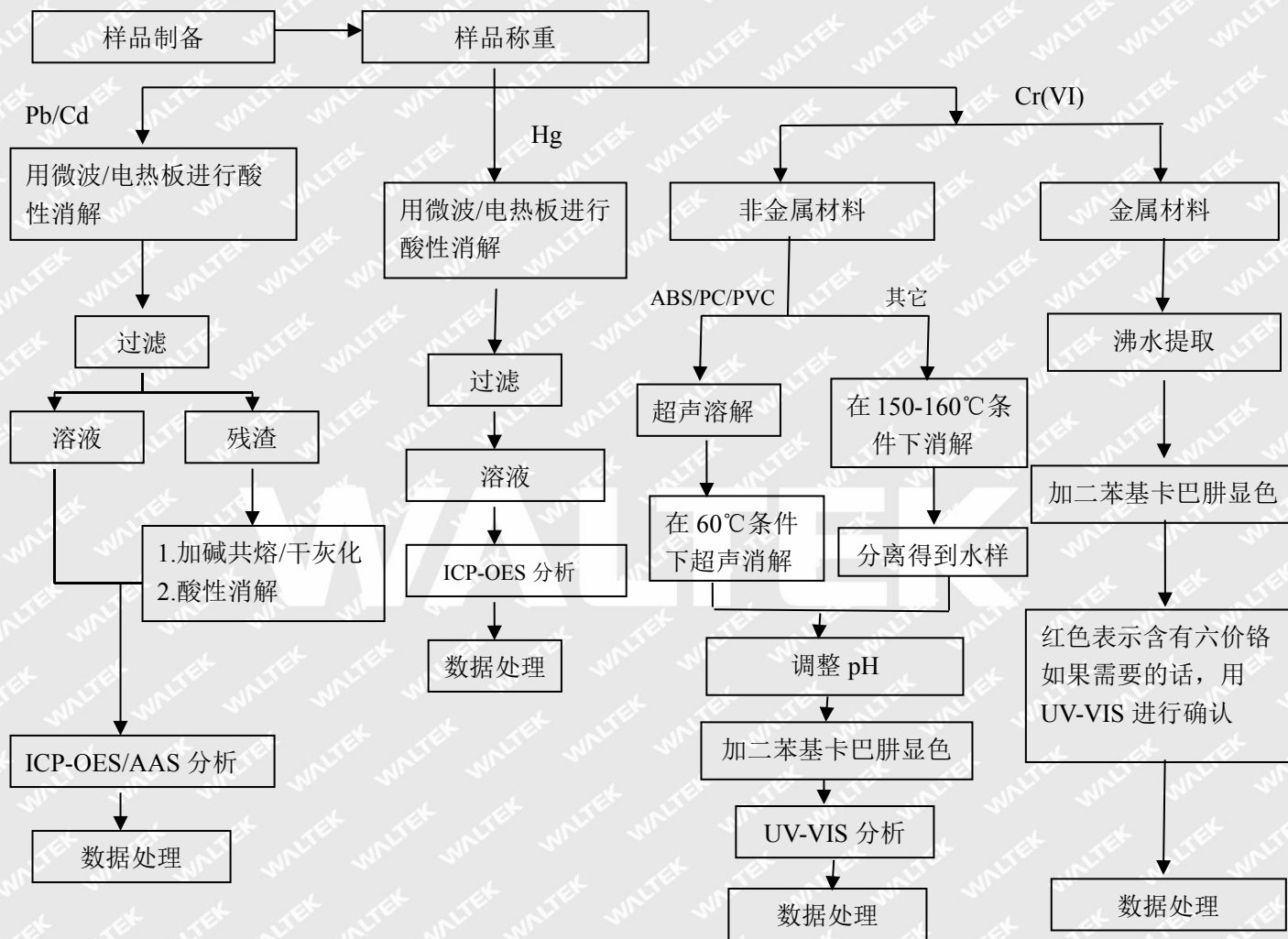
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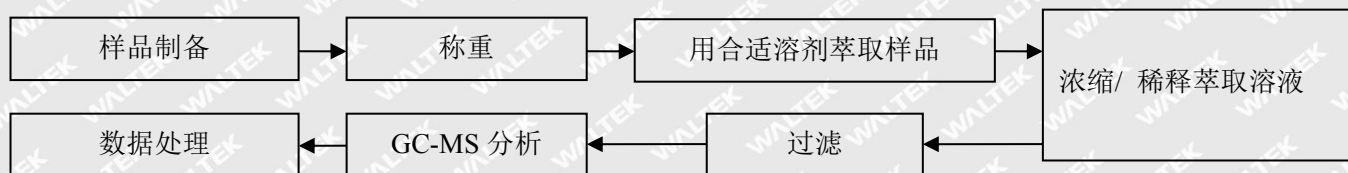
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铅、镉、汞、六价铬、多溴联苯、多溴二苯醚的检测流程图



根据以上的流程图之条件, 样品已经完全溶解(六价铬检测方法除外)。

PBBs/PBDEs





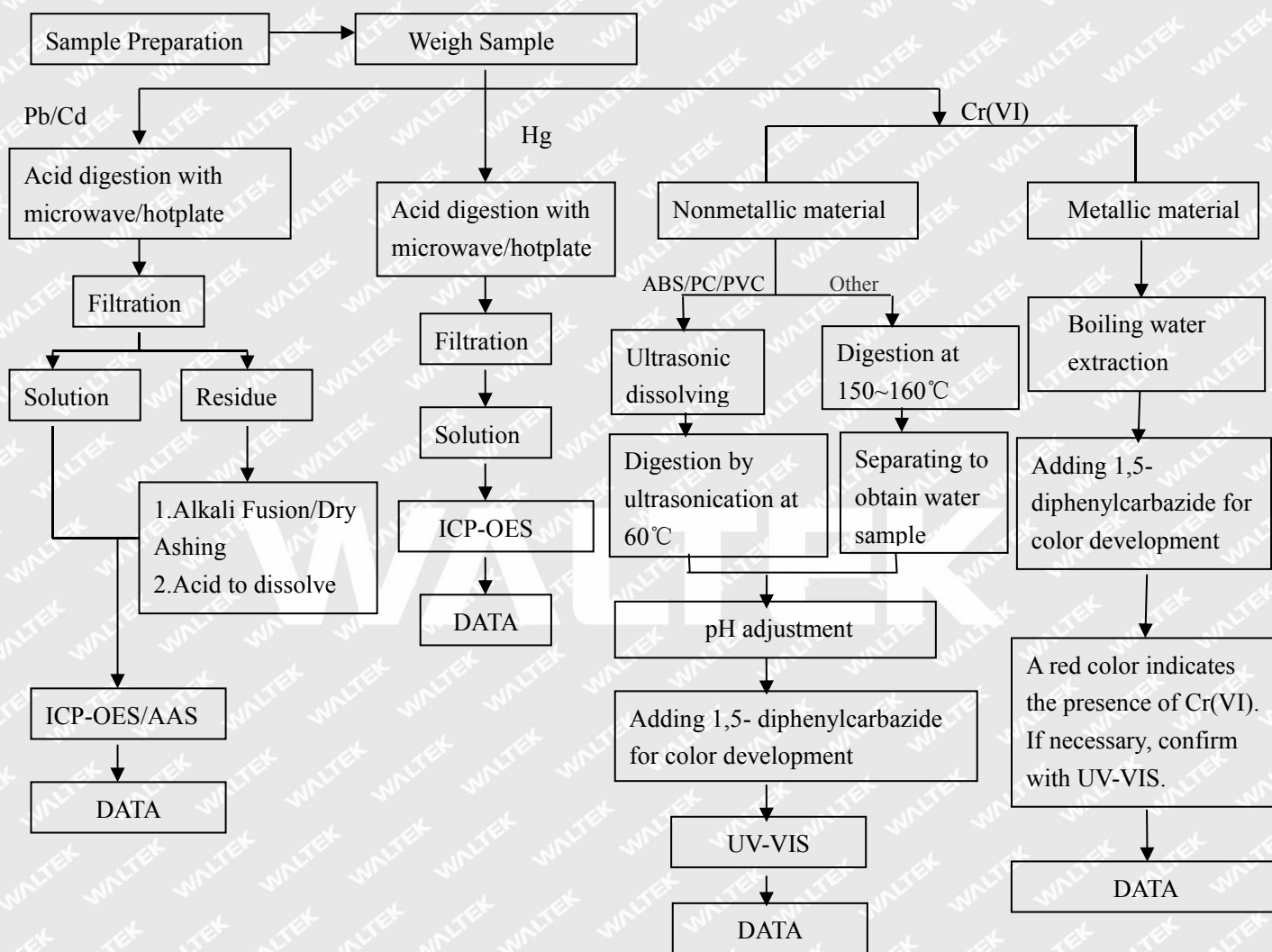
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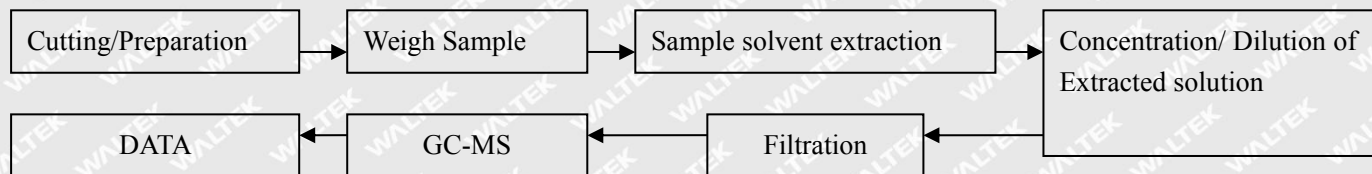
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Test Flow Chart for Pb, Cd, Hg, Cr(VI), PBBs, PBDEs



These sample were dissolved totally by pre-conditioning method according to above flow chart(Cr(VI) test method excluded)

PBBs/PBDEs





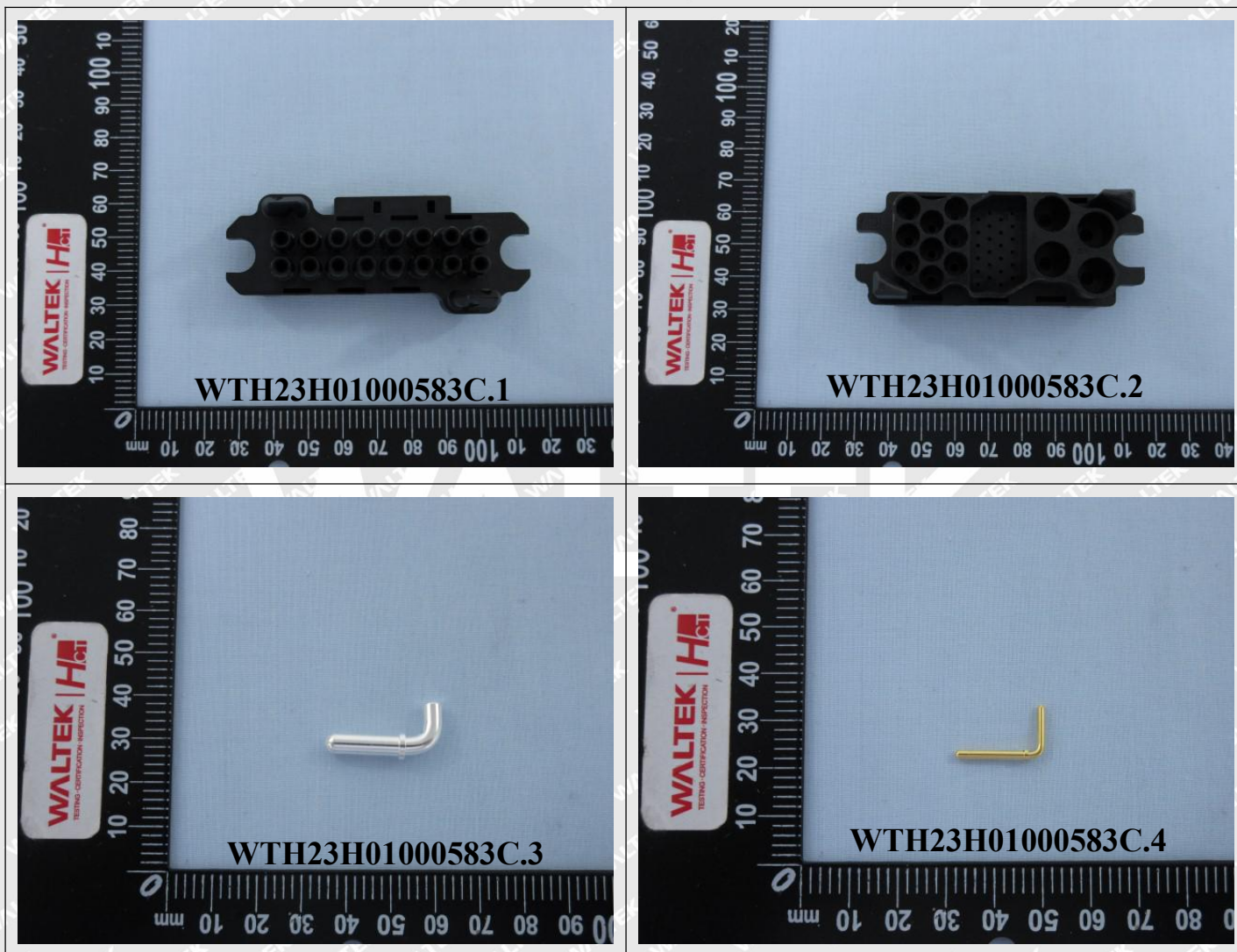
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样品附图(The photo of the sample)



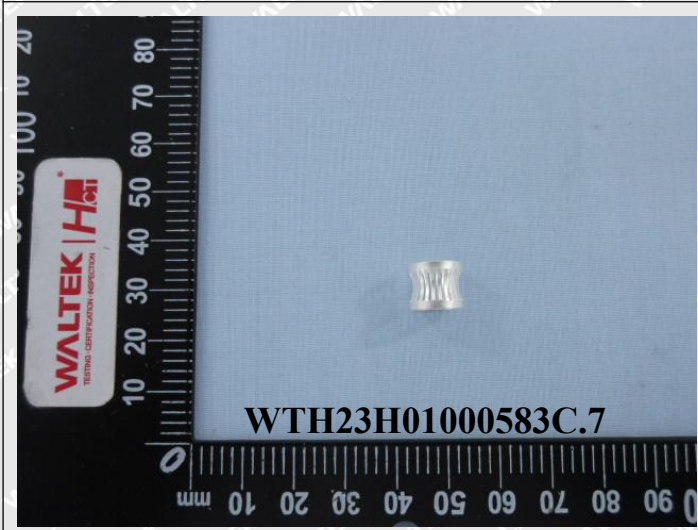
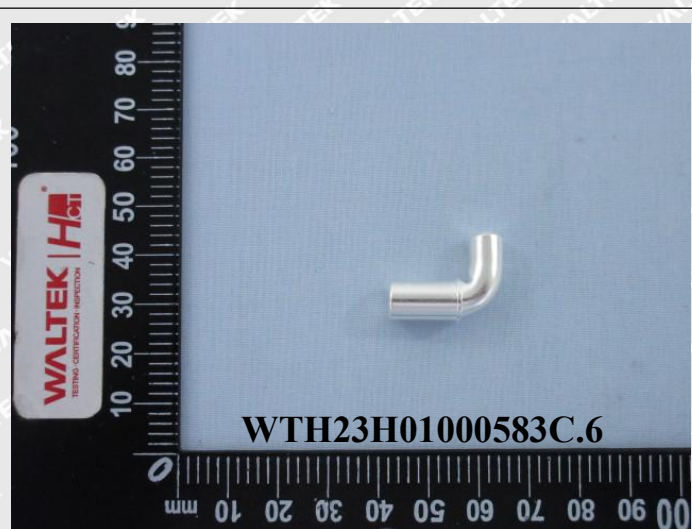


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声明(Statement):

1. 检测报告无批准人签字和专用章无效;
This report is considered invalid without approved signature and special seal;
2. 委托单位及地址, 样品和样品信息由委托方提供, 委托方应对其真实性负责, HCT 未核实其真实性;
The Applicant name and Address, the sample(s) and sample information was/were provided by the applicant who should be responsible for the authenticity which HCT hasn't verified;
3. 本报告检测结果(结论)仅对受测样品负责;
The result(s)(conclusion) shown in this report refer(s) only to the sample(s) tested;
4. 未经 HCT 书面同意, 不得部分复制本报告;
Without written approval of HCT, this report can't be reproduced except in full;
5. 无 CMA 标识报告中的结果仅用于客户科研、教学、内部质量控制、产品研发等目的, 仅供内部参考;
The result(s) in no CMA logo report shall only be used for client's scientific research, teaching, internal quality control, product research and development, etc. and just for internal reference;
6. 有 CNAS 标识报告中的“n”代表该检测项目暂未申请 CNAS 认可;
The “n” in CNAS logo report means that the test item(s) was (were) currently not applying for CNAS accreditation;
7. 本报告使用的判定规则:
Decision rules used in this report:
(1)按照检测要求列的法规/标准中规定的判定规则;
(2)如果检测要求列的法规中没有规定判定规则的话,则按照《CNAS-GL015 判定规则和符合性声明指南》6.2.1 简单接受(w=0)的判定规则:
合格(接受)--测得值位于容许区间以内。
不合格(拒绝)--测得值位于容许区间以外。





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- (1)According to the Decision rules in the regulations/standards listed in the Test Requested;
(2)If there is no Decision rules specified in the regulations listed in the Test Requested, then according to CNAS-GL015 Guidelines on Decision Rules and Statements of Conformity, 6.2.1, Simple Acceptance ($w=0$) of The binary Decision rule:
PASS (Accepted) - The measured value is within the tolerance interval.
FAIL (Rejected) - The measured value is outside the tolerance interval.

报告结束(End)

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