TEST REPORT

Applicant	:	XI'AN LONN M&E EQUIPMENT CO., LTD.
Address	:	12th South of Chang'an Road, Yanta District, Xi'an 710061, Shaanxi, China
Manufacturer	:	XI'AN LONN M&E EQUIPMENT CO., LTD.
Address	:	12th South of Chang'an Road, Yanta District, Xi'an 710061, Shaanxi, China
Sample name	:	DIGITAL THERMOMETER
Trademark	:	N/A
Model	:	LDT-100, LDT-200, TP700, TP710, TP401, TP800, PT-2(WT-2), LDT-108
Test Requested:		German Food, Articles of Daily use and Feed code of September 1, 2005(LFGB) with amendments, Section 30&31 and hence Article 3 of European Regulation No. 1935/2004:
Test Results		PASS
Report Number	:	UTT202507574S
Date of Test	:	July 07, 2025 to July 15, 2025
Date of Report	:	July 15, 2025
Test by	:	Louin Huang
Review by	:	Mike Huang
Approve by	:	Joseph Zhang

DONGGUAN UTT SERVICE CO., LTD. CERTIFICATED

1. Material List:

Material No.	Material	Color	Location
1	SUS 304	Silvery	Probe

2. Overall Results:

Test No.	Tested Item	Conclusion
1	Sensorial examination	Pass
2	Global Migration	Pass
3	Specific Migration of metals	Pass
4	Colourfastness	Pass
5	Release of Heavy Metals from Glassware	Pass
6	Residual Catalyst	Pass
7	Specific Release of Metals	Pass

3. Results

3.1 Sensorial examination

Test method:

It is examined to the extent of food simulant being used, which comes into contact with the product, undergoes detectable changes in taste and smell.
For this purpose, the food simulant was stored in the product under the below mentioned time and temperature. Afterwards, the food simulant was examined by an appropriate number of tasters with regard to any divergence in smell and taste. Another test sample, which was used as a reference, was treated by the same way except that it had no contact with the product to be tested.
Before testing, the product had been cleaned according to the product's instruction manual or in the absence of such manual, by normal household cleaning.
The test is carried out on the basis of DIN 10955:2004 by paired comparison test:

Evaluation scheme:

0 =	No discernible deviation
1 =	Barely discernible deviation
2 =	Weak deviation
3 =	Clear deviation
4 =	Strong deviation
Limit:	3 (failed)

The following food simulants and conditions were applied:

Food simulant	Test duration / Temperature
Water	2 hour(s) / 100 °C

Sample No.:	1
Parameter:	**Result**
Transfer of Smell:	0
Transfer of Taste:	0

Food simulant	Test duration / Temperature
Water	2 hour(s) / 70 °C

Sample No.:	1
Parameter:	**Result**
Transfer of Smell:	0
Transfer of Taste:	0

3.2 Global Migration

Test method: The migratory behaviour is examined in accordance with Directive 82/711/EEC and Council Directive 85/572/EEC and its corresponding regulations. Deviating to the regulations the following tests were performed as orientating single tests.

Limit: With reference to Commission Regulation (EU) No 10/2011 and amendments

The following food simulants and conditions were applied:

Food simulant	Test duration / Temperature
Acetic acid 3 %	2 hour(s) / 100 °C
Ethanol 95 %	4 hour(s) / 60 °C
Isooctane	2 hour(s) / 60 °C

Sample No.:	1		
Migration ratio:	100 ml / 0.97 dm^2		
Parameter	**Unit**	**Result**	**Limit**
Acetic acid 3 %	mg/dm^2	<2.0	10
Ethanol 95 %	mg/dm^2	<2.0	10
Isooctane	mg/dm^2	<2.0	10

Food simulant	Test duration / Temperature
Acetic acid 3 %	2 hour(s) / 70 °C
Ethanol 95 %	2 hour(s) / 60 °C
Isooctane	30 min(s) / 40 °C

Sample No.:	1		
Migration ratio:	1000 ml / 6 dm^2		
Parameter	**Unit**	**Result**	**Limit**
Acetic acid 3 %	mg/dm^2	3.2	10
Ethanol 95 %	mg/dm^2	6.3	10
Isooctane	mg/dm^2	7.4	10

Food simulant	Test duration / Temperature
Acetic acid 3 %	2 hour(s) / 100 °C
Ethanol 50 %	Reflux for 2 hours
MPPO	1 hour(s) / 121 °C

Sample No.:	1		
Parameter	**Unit**	**Result**	**Limit**
Acetic acid 3 %	mg/dm^2	5.8	10
Ethanol 50 %	mg/dm^2	3.6	10
MPPO(3^{rd} Migration)	mg/dm^2	8.4	10

Abbreviations:

mg/dm^2 = Milligram per square decimetre

< = Less than

3.3 Specific Migration of metals

Test method: The sample preparation is performed according to EN 13130-1:2004. Test conditions were chosen according to Directive 82/711/EEC, Council Directive 85/572/EEC and its corresponding regulations. The determination of amounts of metals that were released is done via ICP-OES with reference to ISO 11885:2007.

Limit: Commission Regulation (EU) No 10/2011 and amendments

The following food simulant and condition was applied:

Food simulant	Test duration / Temperature
Acetic acid 3 %	2 hour(s) / 100 °C

Sample No.:	1		
Migration ratio	100 ml / 0.97 dm^2		
Parameter	**Unit**	**Result**	**Limit**
Barium	mg/kg	< 0.1	1
Cobalt	mg/kg	< 0.01	0.05
Copper	mg/kg	< 0.1	5
Iron	mg/kg	< 1.0	48
Lithium	mg/kg	< 0.1	0.6
Manganese	mg/kg	< 0.1	0.6
Zinc	mg/kg	< 1.0	25

Abbreviations:

mg/kg = Milligram per kilogram

< = Less than

3.4 Colourfastness

Test method: 24th Communication on the testing of plastics in Bundesgesundheitsbl. 15 (1972) 285

Requirement: BfR Recommendations on Food Contact Materials (formerly "Plastics Recommendations") Part IX "Colorants for Plastics and other Polymers used in Commodities" - *No transfer of colorants to foodstuffs is permitted*

Sample No.:	1
Parameter Colourfastness to	**Difference between blank and filter paper contacted with sample**
Water	No
Acetic acid 3 %	No
Ethanol 50 %	No
Oil	No

3.5 Release of Heavy Metals from Glassware

Test method: The concentration of the elements in ceramic ware, glassware and drinking rim are examined by means of atomic absorption spectroscopy or ICP-OES. The test is performed reference to EN 1388-1:1995, EN 1388-2:1995 and DIN 51032:1986 respectively

Limit: Acc. to UTT Test Protocol under the scope of Regulation EC 2023/2006 with reference to Directive 84/500/EEC and Austrian Ceramic Ordinance

The following food simulant and condition was applied:

Food simulant	Test duration / Temperature
Acetic acid 4 %	24 hour(s) / 22 °C

Category:	1			
Internal volume	Less than one litre			
Sample No.:	1			
Parameter	**Unit**	**Result**	**Limit** (*1, 2)	**Technically preventable limit**
Lead (Pb)	mg/dm^2	< 0.02	0.8	---
Cadmium (Cd)	mg/dm^2	< 0.002	0.07	---
Cobalt (Co)	mg/dm^2	< 0.01	---	0.02

Zinc (Zn)	mg/article	< 0.5	3.0	---
Barium (Ba)	mg/article	< 0.5	1.0	---
Antimony (Sb)	mg/article	< 0.5	1.0	---

Abbreviations:

mg/dm^2 = Milligram per square decimetre

mg/article = Milligram per article

< = Less than

Remarks:

*1 According to EU Directive 84/500/EEC, articles in contact with food should not exceed the following limits

Category	Description	Lead	Cadmium
1	Articles which can't and articles which can be filled, the internal depth of which, measured from the lowest point to the horizontal plane passing through the upper rim, does not exceed 25 mm	0.8 mg/dm^2	0.07 mg/dm^2
2	Other articles which can be filled	4.0 mg/l	0.3 mg/l
3	Cooking ware; packaging and storage vessels having a capacity of more than three litres	1.5 mg/l	0.1 mg/l

*2 According to Austrian Ceramic Ordinance (BGBl. Nr. 893/1993), articles in contact with food should not exceed the following limits:

Category	Description	Zinc	Antimony	Barium
Internal volume	Less than one litre	3.0 mg/article(#)	1.0 mg/article(#)	1.0 mg/article(#)
	Greater than one litre	3.0 mg/l	1.0 mg/l	1.0 mg/l

(#) Calculation is based on the internal volume of the article

3.6 Residual Catalyst

Test method: The synthetic material is dissolved by acid digestion. The concentration of platinum was determined by means of ICP-OES.

Limit: BfR Recommendations on Food Contact Materials (formerly "Plastics Recommendations") Part XV, 2011 "Silicone"

Sample No.:	1			
Parameter	**Unit**	**RL**	**Result**	**Limit**
Platinum	mg/kg	5	n.d.	50

Abbreviations:

n.d. = Not detected (<Reporting Limit)

RL = Reporting Limit

mg/kg = Milligram per kilogram

3.7 Specific Release of Metals

Test method: The sample preparation is performed with reference to "*Technical Guide on Metals and alloys used in food contact materials*" . Test conditions were chosen with reference to Directive 82/711/EEC, Council Directive 85/572/EEC and its corresponding regulations. The determination of amounts of metals that were released is done via ICP-OES and ICP-MS with reference to ISO 11885:2007 / DIN EN ISO 17294, respectively.

Limit: Technical Guide on Metals and alloys used in food contact materials

The following food simulant and condition was applied:

Food simulant	**Test duration / Temperature**
Citric Acid 0.5 %	2 hour(s) / 100 °C

Sample No.:	1				
Volume to surface area ratio	2000 ml / 8.04 dm^2				
		Sum 1st + 2nd test		**3rd test**	
Parameter	**Unit**	**Result**	**Limits (*2)**	**Result**	**Limits (*1)**
Silver (Ag)	mg/kg	<0. 10	0.56	<0.05	0.08
Aluminum (Al)	mg/kg	< 1	35	< 0.1	5
Cobalt (Co)	mg/kg	< 0.05	0.14	<0.01	0.02
Chromium (Cr)	mg/kg	0.1	1.75	< 0.1	0.25

Copper (Cu)	mg/kg	< 1	28	< 0.1	4
Iron (Fe)	mg/kg	2	280	< 1	40
Manganese (Mn)	mg/kg	< 0.5	12.6	< 0.1	1.8
Molybdenum (Mo)	mg/kg	< 0.05	0.84	< 0.02	0.12
Nickel (Ni)	mg/kg	0.13	0.98	< 0.05	0.14
Tin (Sn)	mg/kg	< 1	700	< 1	100
Vanadium (V)	mg/kg	< 0.05	0.07	<0.01	0.01
Zinc (Zn)	mg/kg	< 1	35	< 1	5
Arsenic (As)	mg/kg	< 0.005	0.014	< 0.002	0.002
Barium (Ba)	mg/kg	< 0.5	8.4	< 0.1	1.2
Beryllium (Be)	mg/kg	< 0.01	0.07	< 0.01	0.01
Cadmium (Cd)	mg/kg	< 0.01	0.035	< 0.005	0.005
Mercury (Hg)	mg/kg	< 0.01	0.021	< 0.003	0.003
Lithium (Li)	mg/kg	< 0.05	0.336	<0.02	0.048
Lead (Pb)	mg/kg	< 0.01	0.07	< 0.01	0.01
Antimony (Sb)	mg/kg	< 0.05	0.28	<0.02	0.04
Thallium (Tl)	mg/kg	< 0.0005	0.0007	<0.0001	0.0001

Abbreviations:

mg/kg = Milligram per kilogram

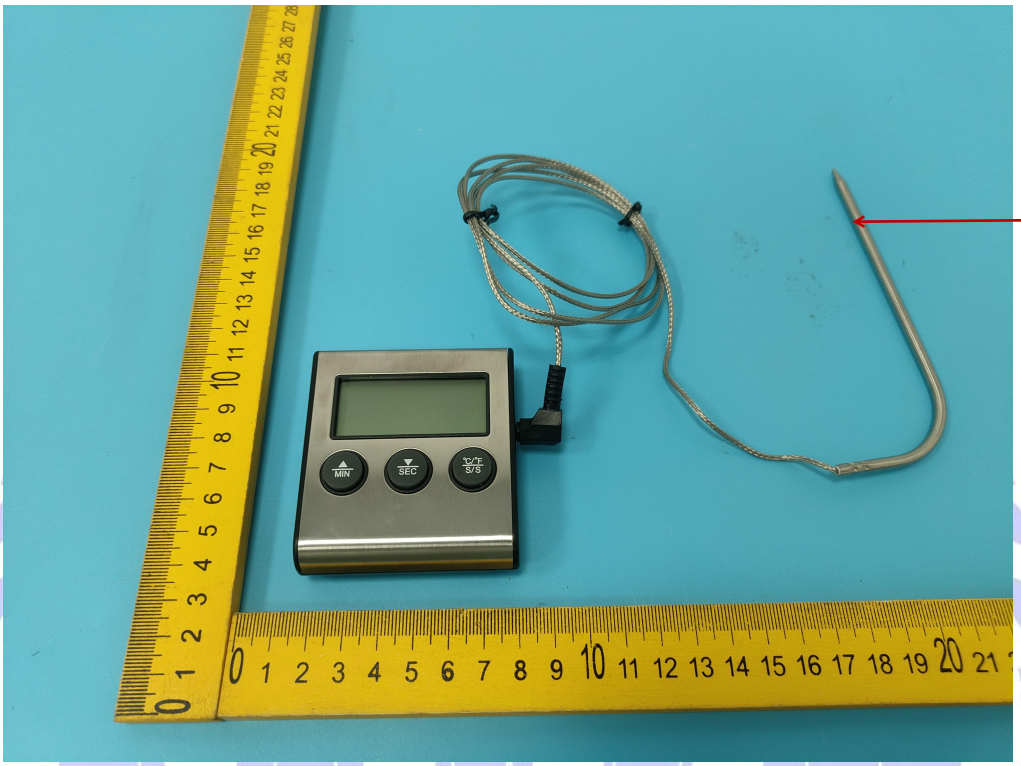
< = Less than

Remark:

*1 Compliance is established on the findings on the third test for products intended for repeated use.

*2 In addition, the sum of each metal in the first and second test should not exceed the sevenfold limit.

4. Photo(s) of the sample(s)



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