



中国认可
国际互认
检测
TESTING
CNAS L6478



TEST REPORT

Reference No. : WTF19F09063601X1C
Applicant : Mid Ocean Brands B.V.
Address : 7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Manufacturer..... : 104901
Sample Name..... : Ball pen with Biodegradable parts, Ball pen, Biodegradable plastic ball pen, 4 ink color ball pen, Ball pen with rubber grip, Wooden ball pen, Ball pen with hand top, Ball pen in metallic finish, Bamboo ball pen, Ball pen with highlighter, Set of ball pen and mechanical pen
Model No. : MO9830, IT3361, IT3780, IT3888, KC5000, KC5116, KC6217, KC6725, KC6726, MO7203, MO7256, MO7318, MO7440, MO7620, MO8111, MO9483, MO9484, MO3361
Date of Receipt sample..... : 2018-08-23 & 2018-10-23 & 2018-11-22 & 2019-09-12
Date of Test..... : 2018-08-23 to 2018-11-23 & 2019-09-12 to 2019-09-17
Date of Issue : 2019-10-10
Test Result..... : Please refer to next page (s)
Note : 1.As per client's requirement, the results of specimen from No.1 to No.41 were quoted from Report No. WTF18F08121853A1C.
 2. The test points were selected by the applicant.
 3. This report is based on Waltek test report WTF19F09063601C for revising, and replaced report WTF19F09063601C.

Remarks:

The results shown in this test report refer only to the sample(s) tested; this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.
 If the report is not stamped with the accreditation recognized seal, it will only be used for scientific research, education, and internal quality control activities, and is not used for the purpose of issuing supporting data to the society.

Prepared By:

Waltek Services (Foshan) Co., Ltd.

Address: No.13-19, 2/F., 2nd Building, Sunlink International Machinery City, Chencun, Shunde District, Foshan, Guangdong, China

Tel:+86-757-23811398 Fax:+86-757-23811381 E-mail:info@waltek.com.cn

Compiled by:

Rena Chen

Rena.Chen /Project Engineer

Approved by:



Swing Liang

Swing.Liang /Lab Manager



- Test Requested**..... : 1) Determination of Lead content in the submitted sample in accordance with REACH regulation Annex XVII Entries 63 (EC) No. 1907/2006 and the amendment No. 836/2012 and (EU) 2015/628
2) Determination of Cadmium content in the submitted sample in accordance with REACH regulation Annex XVII Entries 23 (EC) No. 1907/2006 and the amendment No. 552/2009, No. 494/2011, No. 835/2012 and (EU) 2016/217
3) As specified by client, determination of the free and hydrolysed formaldehyde content in submitted sample
- Test Method** : Please refer to next page (s)
- Test Conclusion** : Please refer to next page (s)



WALTEK

**Test Result:**

Test Method: With reference to IEC 62321-5:2013, the analysis was performed by ICP-OES.

Test Item	MDL (mg/kg)	Results (mg/kg)						Limit (mg/kg)
		No.1	No.2	No.3	No.4	No.5	No.6	
Lead(Pb)	2	ND	ND	ND	ND	ND	ND	500
Conclusion	--	Pass	Pass	Pass	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	Results (mg/kg)						Limit (mg/kg)
		No.7	No.8	No.9	No.10	No.11	No.12	
Lead(Pb)	2	ND	ND	ND	ND	ND	ND	500
Conclusion	--	Pass	Pass	Pass	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	Results (mg/kg)						Limit (mg/kg)
		No.13	No.14	No.15	No.16	No.17	No.18	
Lead(Pb)	2	ND	170	62	ND	ND	ND	500
Conclusion	--	Pass	Pass	Pass	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	Results (mg/kg)						Limit (mg/kg)
		No.19	No.20	No.21	No.22	No.23	No.24	
Lead(Pb)	2	ND	ND	ND	ND	46	ND	500
Conclusion	--	Pass	Pass	Pass	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	Results (mg/kg)						Limit (mg/kg)
		No.25	No.26	No.27	No.28	No.29	No.30	
Lead(Pb)	2	ND	ND	ND	ND	ND	ND	500
Conclusion	--	Pass	Pass	Pass	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	Results (mg/kg)						Limit (mg/kg)
		No.31	No.32	No.33	No.34	No.35	No.36	
Lead(Pb)	2	ND	ND	ND	ND	ND	ND	500
Conclusion	--	Pass	Pass	Pass	Pass	Pass	Pass	--

Test Item	MDL (mg/kg)	Results (mg/kg)						Limit (mg/kg)
		No.37	No.38	No.39	No.40	No.41	No.42	
Lead(Pb)	2	ND	ND	ND	ND	ND	ND	500
Conclusion	--	Pass	Pass	Pass	Pass	Pass	Pass	--

**Note:**

- (1) mg/kg = milligram per kilogram
- (2) ND = Not Detected (lower than MDL)
- (3) MDL = Method Detection Limit
- (4) Limit of Lead was quoted from REACH regulation Annex XVII Item 63 (EC) No. 1907/2006 and the amendment No. 836/2012 and (EU) 2015/628.

2) Cadmium (Cd)

Test Method: With reference to IEC 62321-5:2013, the analysis was performed by ICP-OES.

Test Item	MDL (mg/kg)	Results (mg/kg)				
		No.1	No.5	No.7	No.9	No.12
Cadmium(Cd)	2	ND	ND	ND	ND	ND
Conclusion	--	Pass	Pass	Pass	Pass	Pass

Test Item	MDL (mg/kg)	Results (mg/kg)				
		No.13	No.16	No.18	No.20	No.22
Cadmium(Cd)	2	ND	ND	ND	ND	ND
Conclusion	--	Pass	Pass	Pass	Pass	Pass

Test Item	MDL (mg/kg)	Results (mg/kg)				
		No.23	No.26	No.27	No.28	No.29
Cadmium(Cd)	2	ND	ND	ND	ND	ND
Conclusion	--	Pass	Pass	Pass	Pass	Pass

Test Item	MDL (mg/kg)	Results (mg/kg)				
		No.30	No.31	No.32	No.33	No.34
Cadmium(Cd)	2	ND	ND	ND	ND	ND
Conclusion	--	Pass	Pass	Pass	Pass	Pass

Test Item	MDL (mg/kg)	Results (mg/kg)				
		No.35	No.36	No.37	No.38	No.41
Cadmium(Cd)	2	ND	ND	ND	ND	ND
Conclusion	--	Pass	Pass	Pass	Pass	Pass

**Note:**

- (1) mg/kg = milligram per kilogram
- (2) ND = Not Detected (lower than MDL)
- (3) MDL = Method Detection Limit
- (4) Limit of Cadmium according to REACH regulation Annex XVII Item 23 (EC) No. 1907/2006 and the amendment No. 552/2009, No. 494/2011 and No. 835/2012 and (EU) 2016/217.

Category	Limit (mg/kg)
Wet paint	100
Surface coating	1000
Plastic	100
Metal parts of jewellery and hair accessories	100

3) Formaldehyde

Test Method: With reference to EN717-3:1996, analysis was performed by UV-VIS

Test Item	Unit	Result		MDL	Client's Limit
		No.2	No.8		
Formaldehyde (CH ₂ O)	mg/kg	ND	ND	10	80
Conclusion	--	Pass	Pass	--	--

Note:

- ND = Not detected or less than the method detection limit
- mg/kg = milligram per kilogram = ppm
- MDL = Method Detection Limit

WALTEK

**Test Specimen Description:**

- No.1: Transparent plastic cap
- No.2: Beige wooden barrel
- No.3: Silvery metal cap
- No.4: Black ink
- No.5: White plastic cap with silvery plating
- No.6: Silvery metal spring
- No.7: Black plastic sleeve
- No.8: Beige wooden barrel
- No.9: White plastic refill
- No.10: Blue ink
- No.11: Silvery metal clip
- No.12: Black soft plastic cap
- No.13: Black plastic sleeve
- No.14: Silvery metal tip
- No.15: Golden metal opening
- No.16: Transparent plastic refill
- No.17: Black core
- No.18: Red plastic cap
- No.19: Brown paper barrel
- No.20: White plastic refill
- No.21: Silvery metal end
- No.22: White plastic cap with silvery coating
- No.23: Black plastic barrel with blue coating
- No.24: Red ink
- No.25: Green ink
- No.26: Transparent red plastic barrel
- No.27: Transparent blue plastic button
- No.28: Transparent green plastic button
- No.29: Transparent black plastic button
- No.30: Transparent plastic cap
- No.31: Red soft plastic grip
- No.32: Dark red plastic cap
- No.33: Orange plastic cap
- No.34: Orange-white soft plastic grip
- No.35: Orange plastic cap
- No.36: Neon orange soft plastic grip
- No.37: Transparent plastic shell
- No.38: Transparent orange plastic cap
- No.39: White felt with orange ink
- No.40: Orange ink
- No.41: White plastic barrel
- No.42: Red paper barrel



WALTEK



Sample photo:



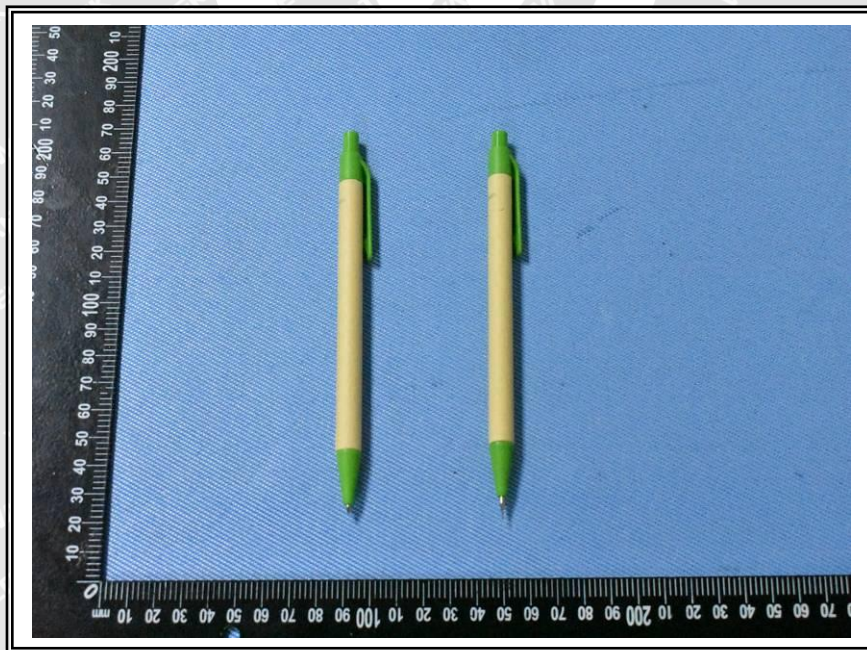


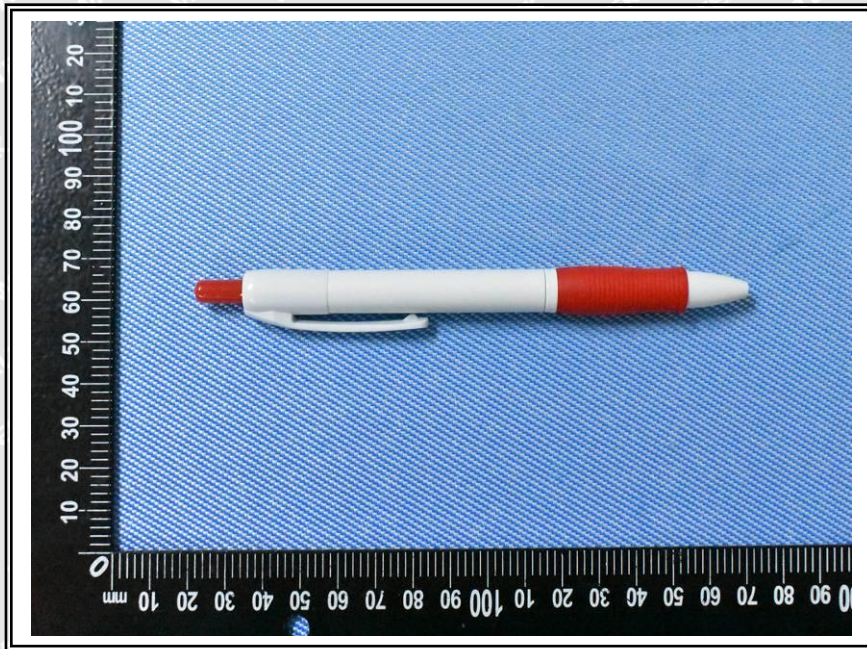


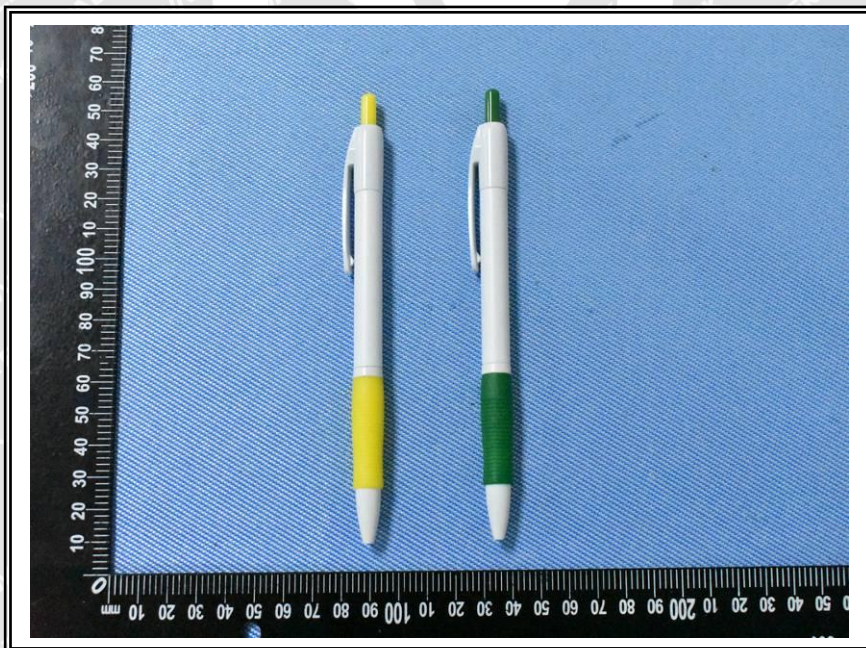
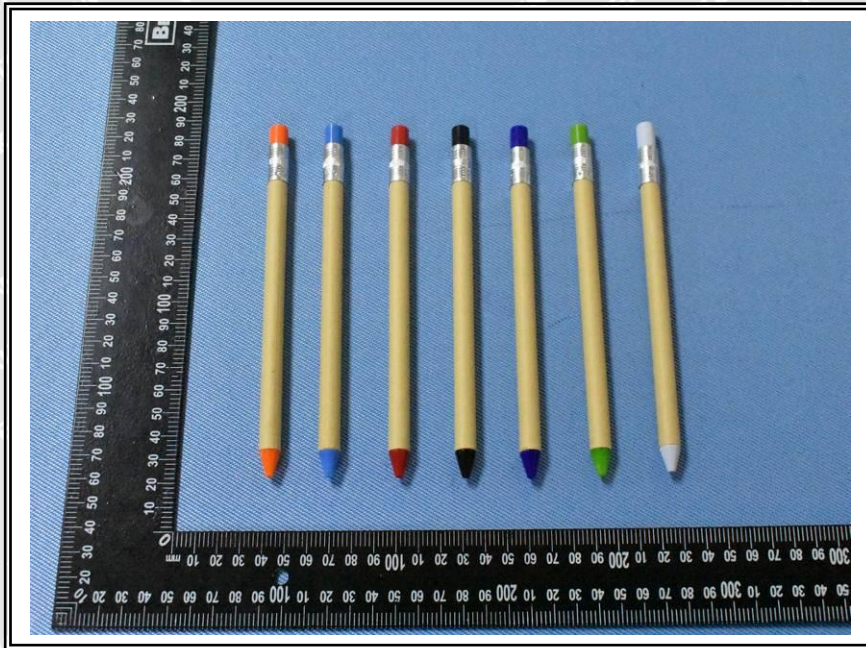


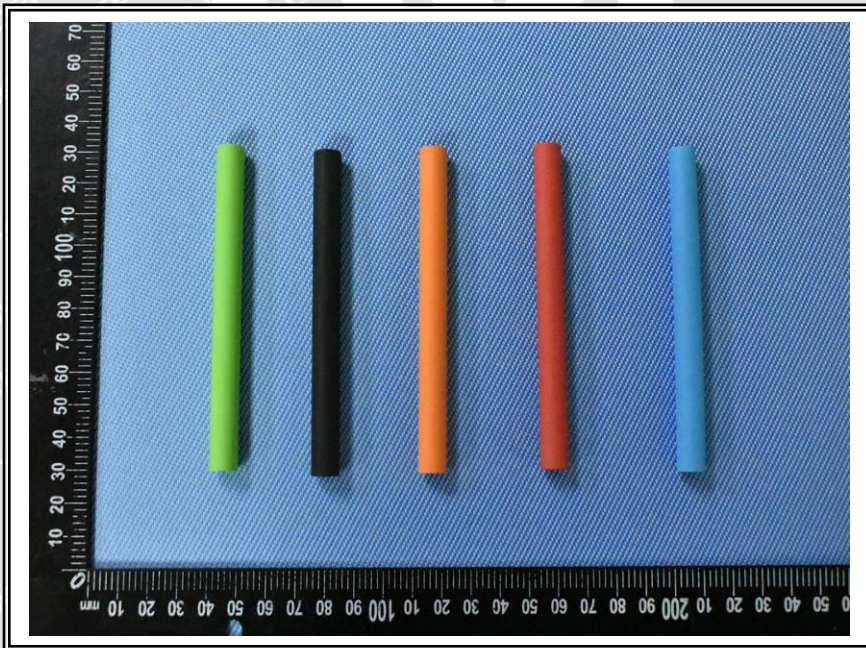










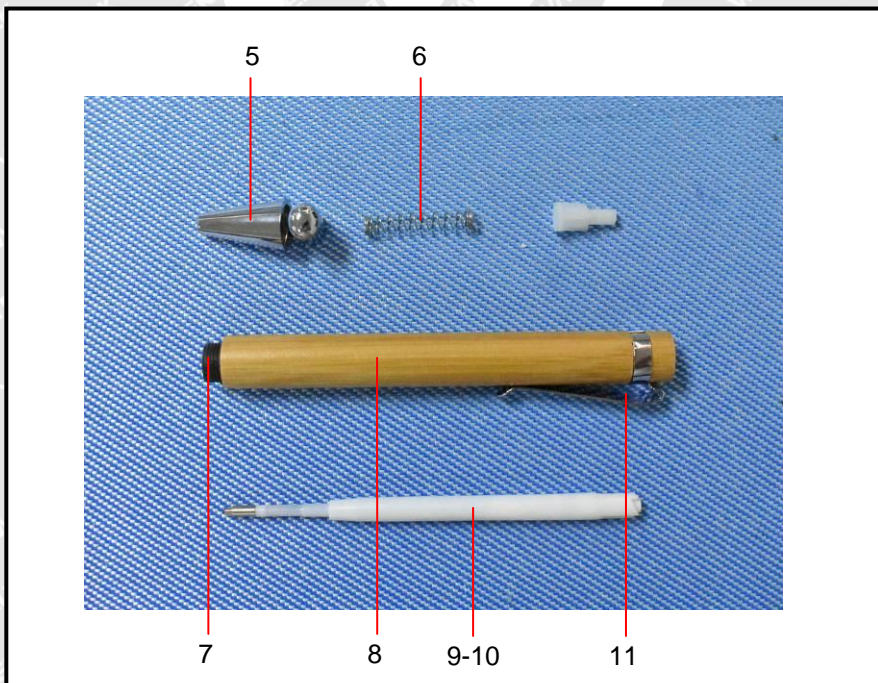
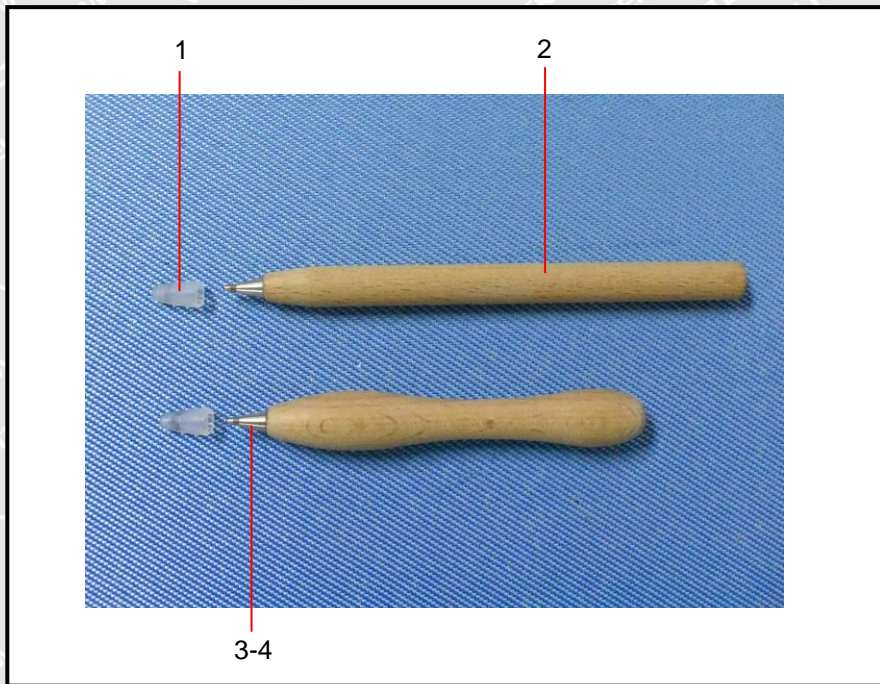


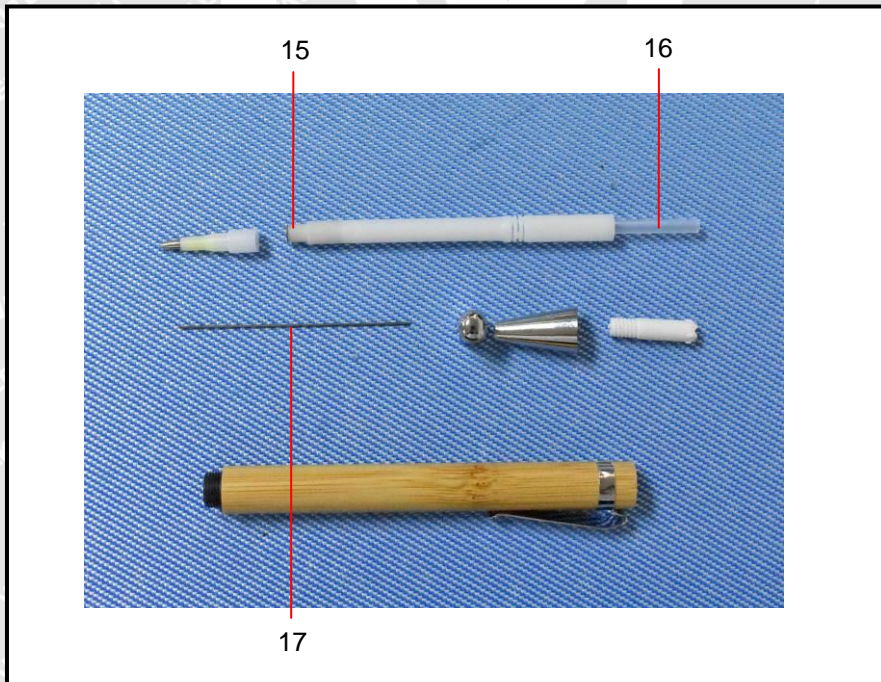
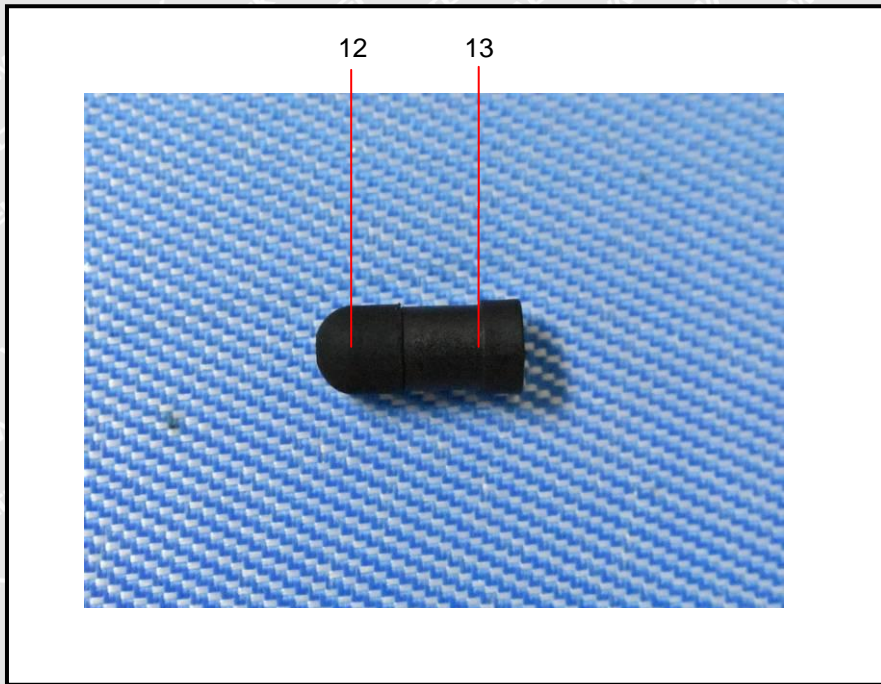


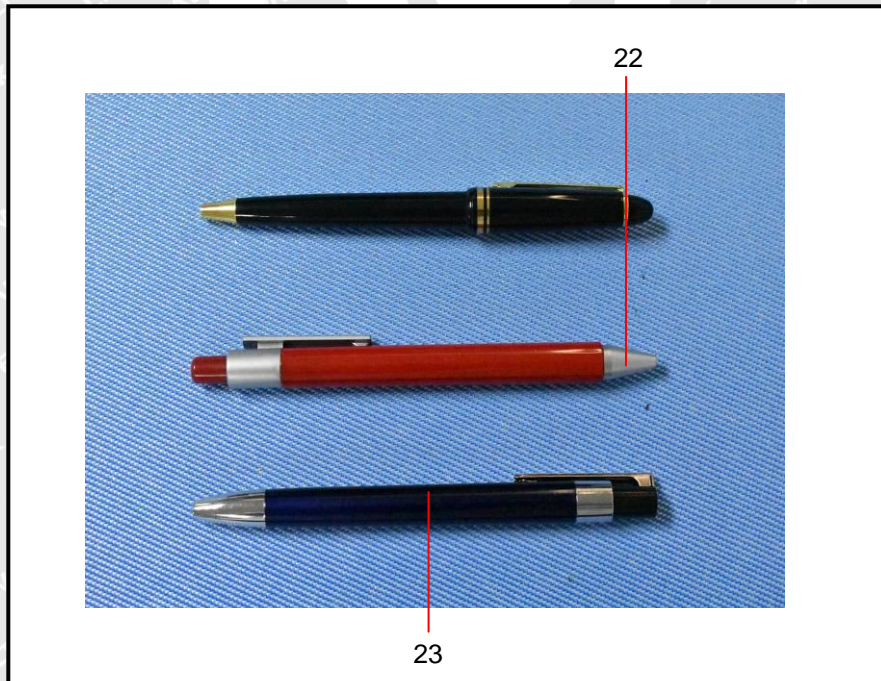
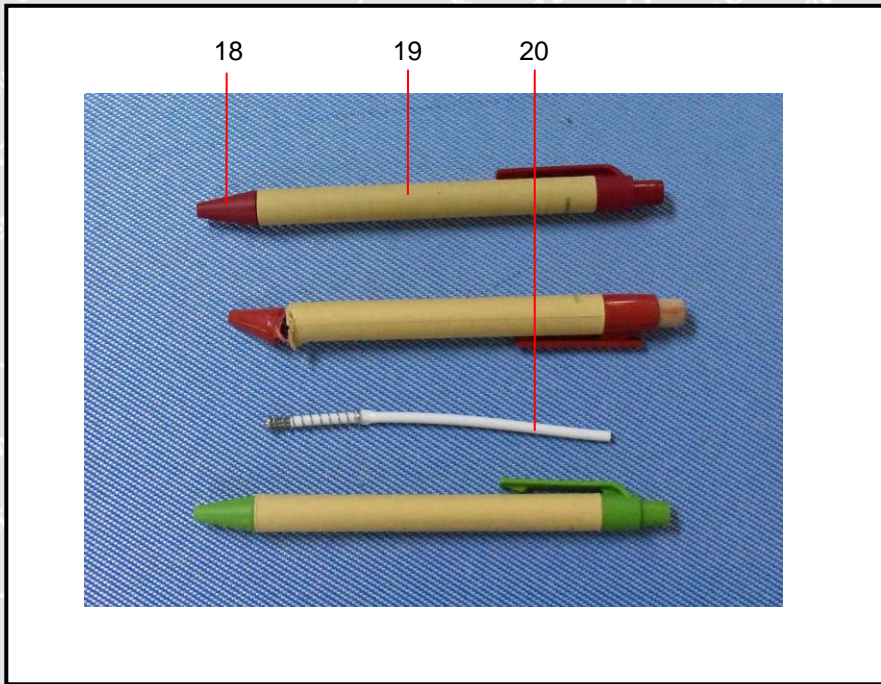
WALTEK

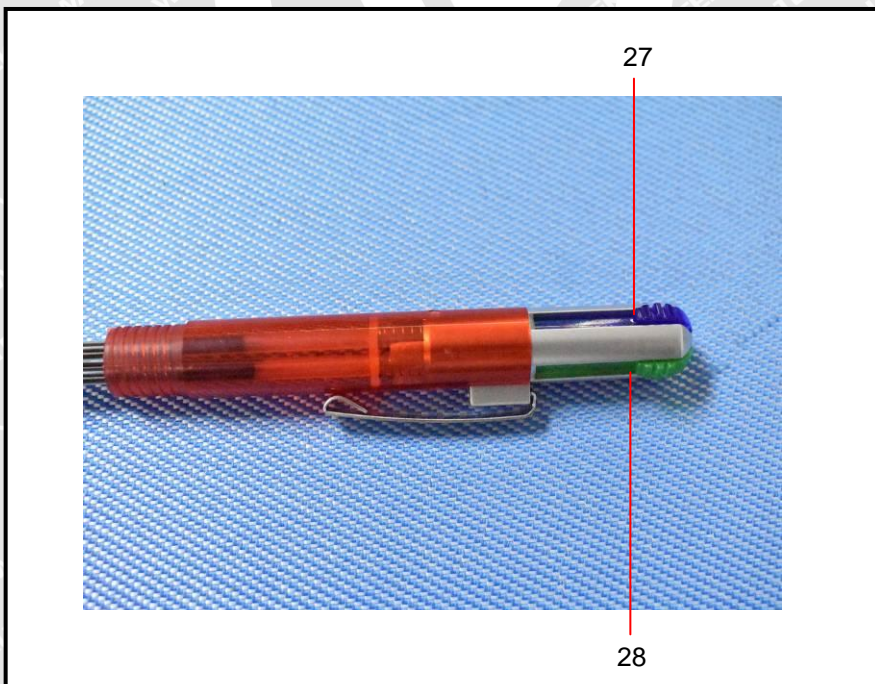
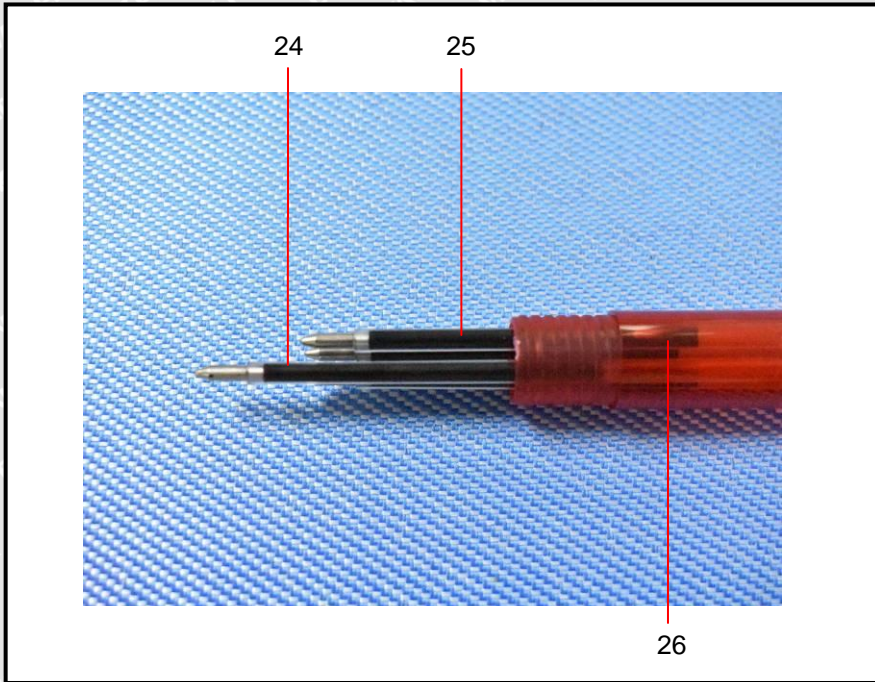


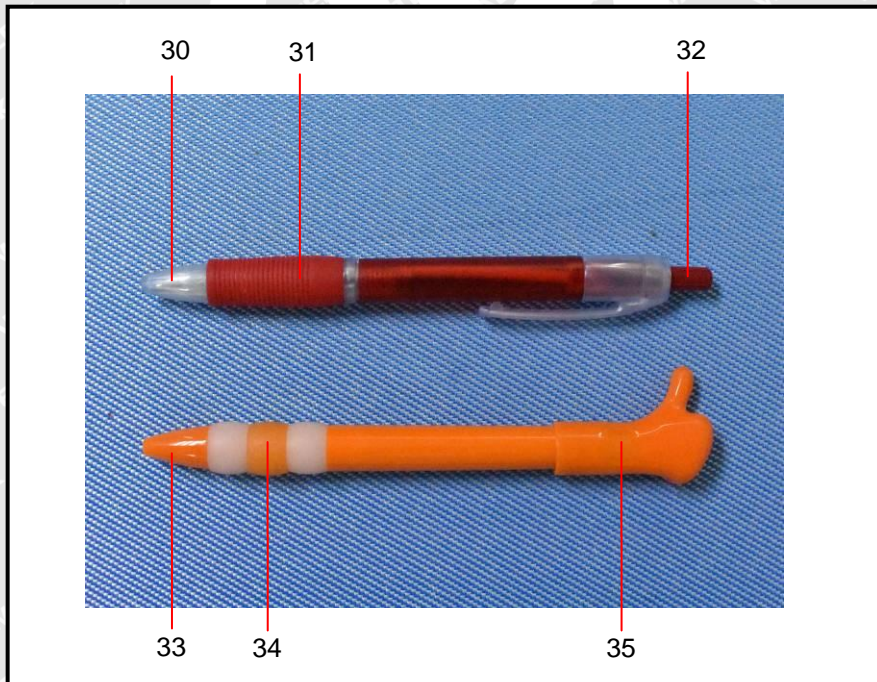
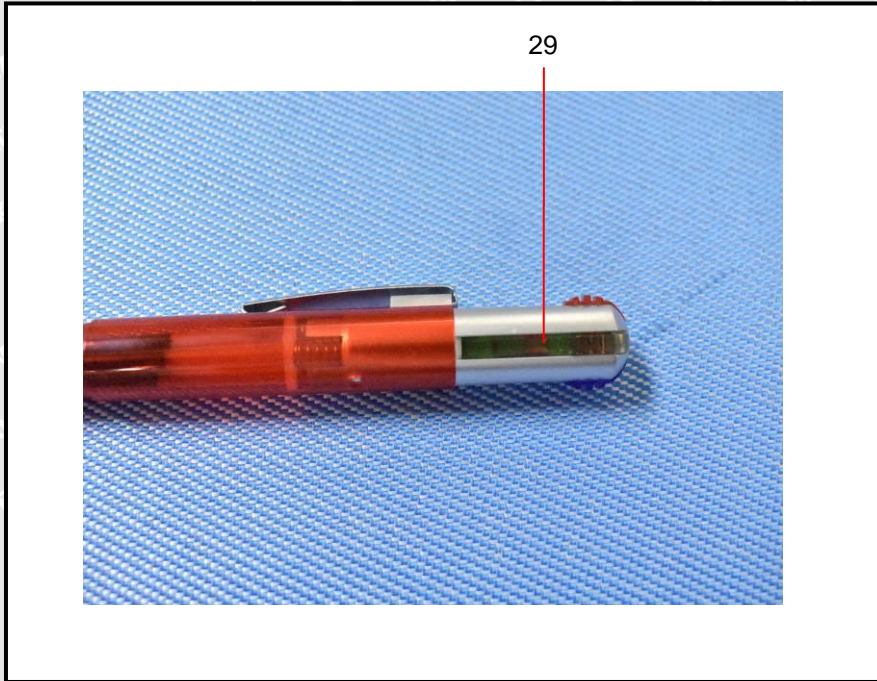
Photographs of parts tested:

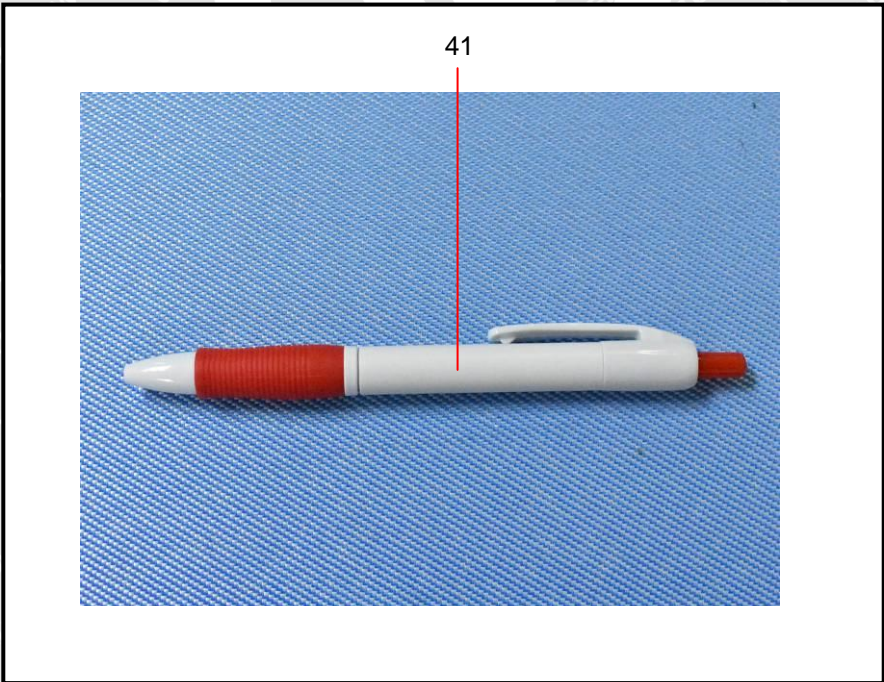
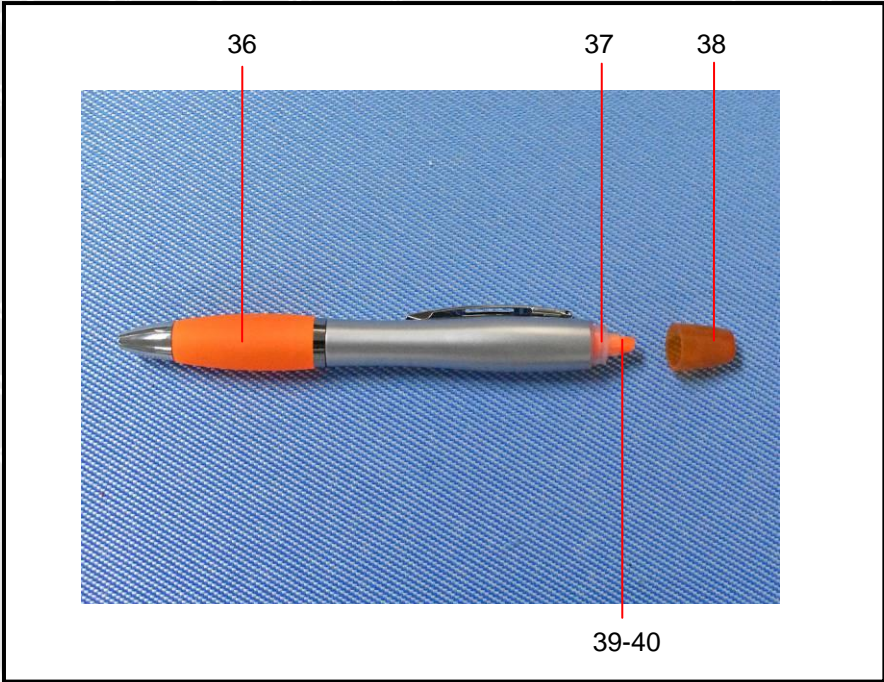


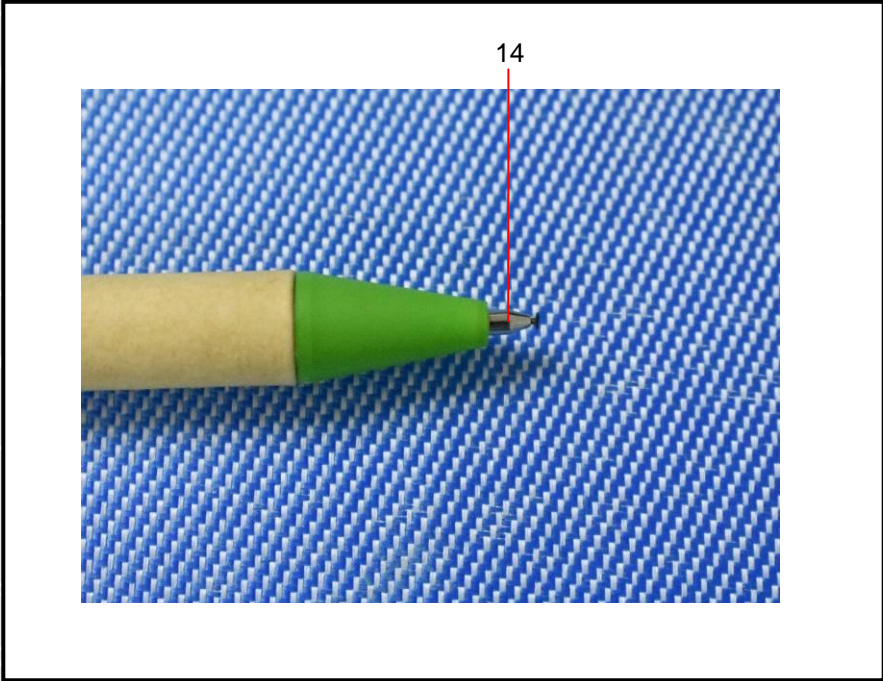
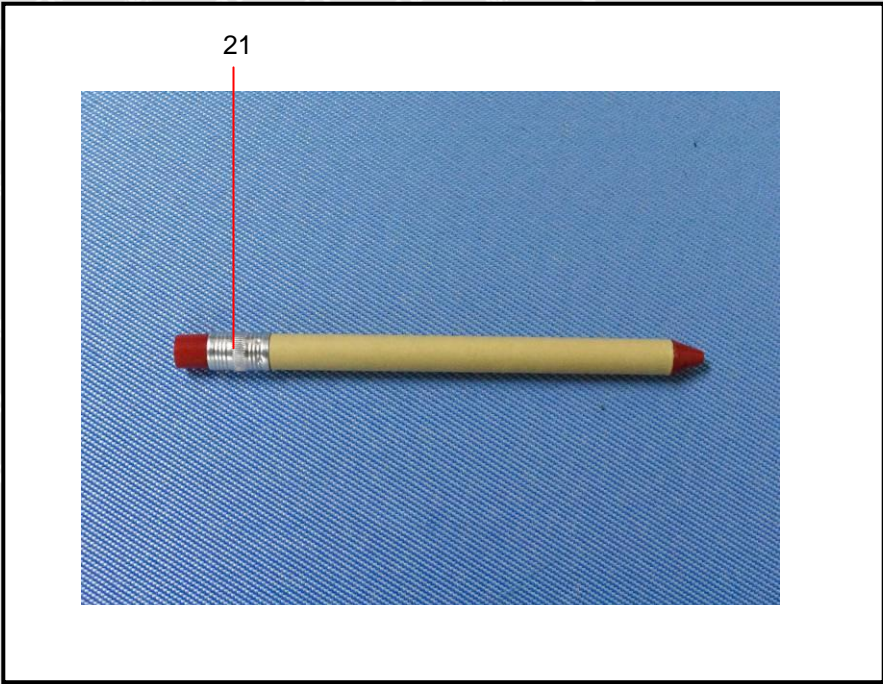


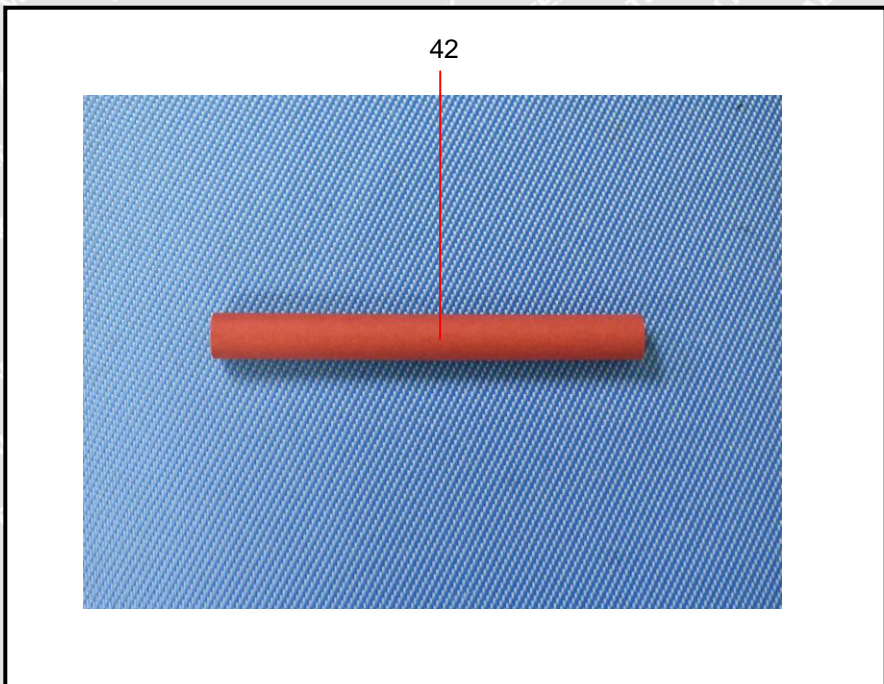












==== End of Report ====

WALTEK