

Test Report No.:

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Client:



Buyer's name:

N/A

Manufacturer's name:

N/A

Test item(s):

Plastic Protecting Box

Test Model No(s):

18-16

Reference Style No(s).

18-1 18-2 18-3 18-4 18-5 18-6 18-7 18-8 18-9 18-10 18-11 18-12
18-13 18-14 18-15 18-17 18-18 18-23

Sample Receiving date:

2014-05-30,2014-06-18

Delivery condition:

Apparent good, Samples tested as received

Test specification:

Test result:

According to RoHS (recast):

**Restriction of the Use of Certain Hazardous Substances in
Electrical and Electronic Equipment, 2011/65/EU**

PASS

Other Information:

Test period: 2014-05-30 ~ 2014-06-24

**For and on behalf of
TÜV Rheinland / CCIC (Ningbo) Co., Ltd.**

2014-06-25 Tom Xie Department manager

Date Name/Position

Test result is drawn according to the kind and extent of tests performed.

This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.

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Test Report No.:

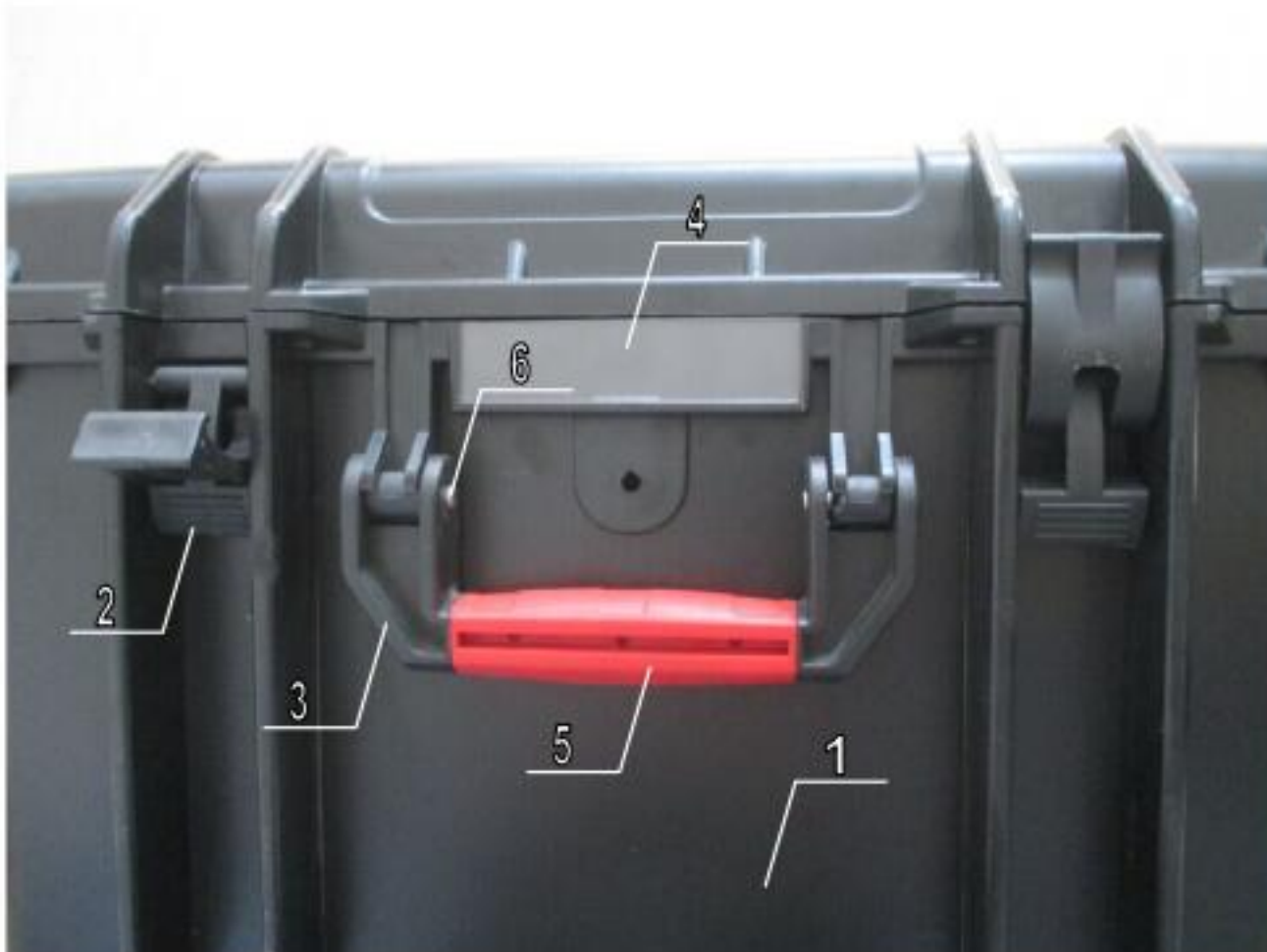
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A. Screening Test by XRF Spectroscopy

 Test Method: Cadmium, Lead, Mercury, Chromium, Bromine
 - With reference to EN 62321: 2009 section 6(XRF)

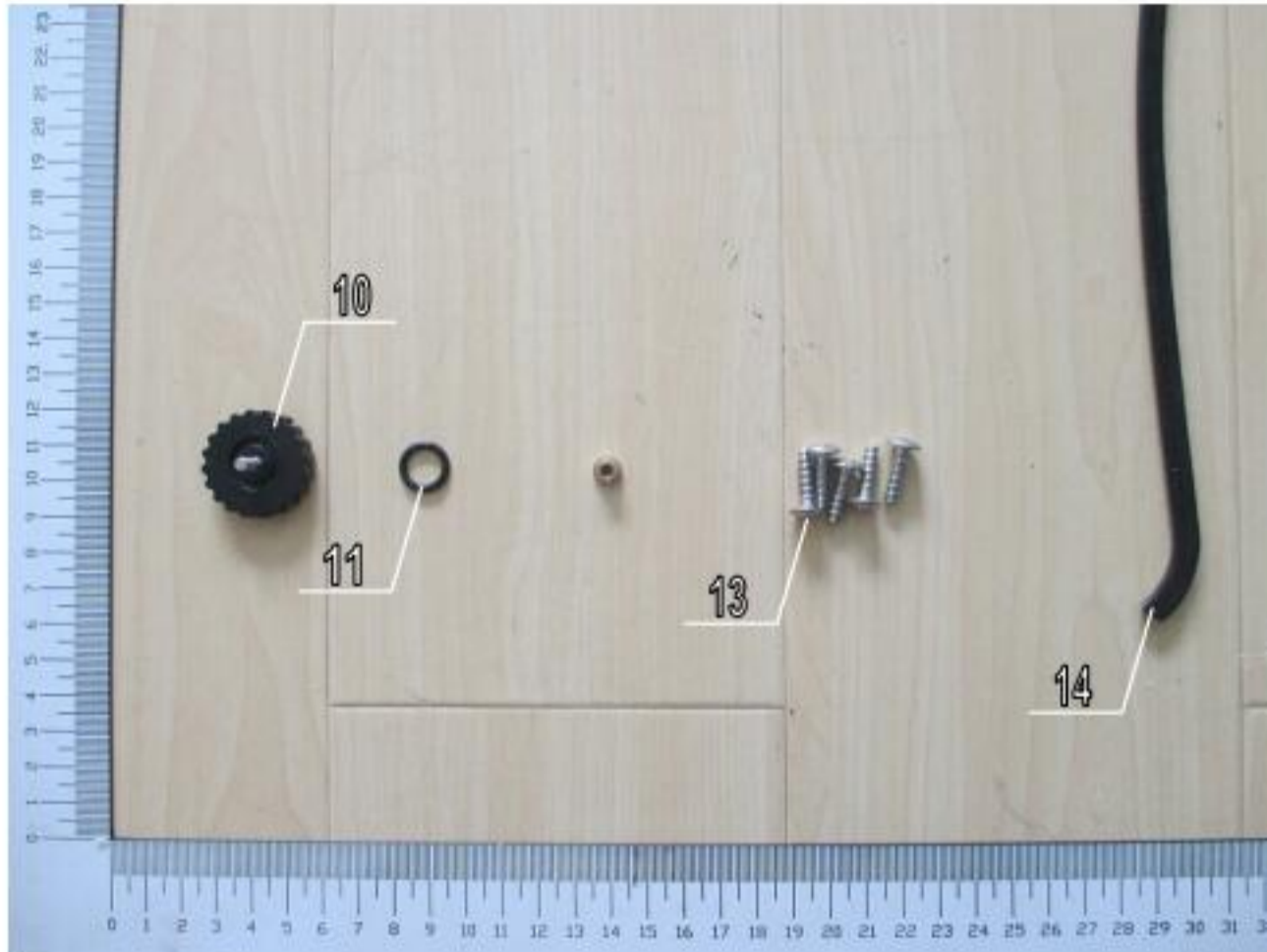
Testing Period: 2014-05-30 ~ 2014-06-24



| Material No. | Result (mg/kg) | | | | |
|-------------------------------|----------------|------|--------------|------|-----------------------|
| | Cd | Pb | Cr | Hg | Br |
| | Limit(mg/kg) | | | | |
| | 100 | 1000 | Cr(VI): 1000 | 1000 | PBB:1000 PBDE:1000 |
| 1(black plastic) (housing) | n.d. | n.d. | n.d. | n.d. | n.d. |
| 2(black plastic) (locker) | n.d. | n.d. | n.d. | n.d. | n.d. |
| 3(black plastic) (handle) | n.d. | n.d. | n.d. | n.d. | d(^1) |
| 4(transparent plastic) | n.d. | n.d. | n.d. | n.d. | n.d. |
| 5(red rubber) (handle) | n.d. | n.d. | n.d. | n.d. | n.d. |
| 6(silvery metal) (axle) | n.d. | n.d. | n.d. | n.d. | N.A. |



| Material No. | Result (mg/kg) | | | | |
|----------------------------|----------------|------|--------------|------|-----------------------|
| | Cd | Pb | Cr | Hg | Br |
| | Limit(mg/kg) | | | | |
| | 100 | 1000 | Cr(VI): 1000 | 1000 | PBB:1000 PBDE:1000 |
| 7(black rubber) (wheel) | n.d. | n.d. | n.d. | n.d. | n.d. |
| 8(black plastic) | n.d. | n.d. | n.d. | n.d. | n.d. |
| 9(black plastic) | n.d. | n.d. | n.d. | n.d. | n.d. |



| Material No. | Result (mg/kg) | | | | |
|------------------------------|----------------|-------|--------------|------|-----------------------|
| | Cd | Pb | Cr | Hg | Br |
| | Limit(mg/kg) | | | | |
| | 100 | 1000 | Cr(VI): 1000 | 1000 | PBB:1000 PBDE:1000 |
| 10(black plastic) (knob) | n.d. | n.d. | n.d. | n.d. | n.d. |
| 11(black rubber ring) | n.d. | n.d. | n.d. | n.d. | n.d. |
| 12(golden metal) (copper) | n.d. | d(^1) | n.d. | n.d. | N.A. |
| 13(metal)(screw) | n.d. | n.d. | d(^2) | n.d. | N.A. |
| 14(black rubber strip) | n.d. | n.d. | n.d. | n.d. | n.d. |

Abbreviation:

| | |
|--------|--|
| Pb | denotes Lead |
| Cd | denotes Cadmium |
| Hg | denotes Mercury |
| Cr | denotes Chromium |
| Cr(VI) | denotes Chromium(VI) |
| Br | denotes Bromine |
| PBBs | denotes Total Polybrominated Biphenyls |
| PBDEs | denotes Total Polybrominated Diphenyl Ethers |
| < | denotes less than |
| N.A. | denotes Not Applicable |
| n.d. | denotes Not Detected |
| d | denotes Detected |

Remark:

- (^1) The screening result was found in the inconclusive region (X), thus the further wet chemistry tests are suggested.
- (^2) The Chromium (VI) content in surface layer has been confirmed with reference to EN 62321: 2009 Annex.

XRF Screening limits for different materials:

| Materials | Concentration (mg/kg) | | | | |
|----------------------------|-----------------------|------------|---------------------|---------------------|------------|
| | Cd | Cr | Pb | Hg | Br |
| Metallic material | P≤ 50 < X ≤150 < F | P≤ 630 < X | P≤ 690 < X≤1360 < F | P≤ 520 < X≤1560 < F | NA |
| Polymeric material | P≤ 50 < X ≤150 < F | P≤ 630 < X | P≤ 690 < X≤1360 < F | P≤ 520 < X≤1560 < F | P≤ 300 < X |
| Electronic material | P≤ 50 < X ≤180 < F | P≤ 500 < X | P≤ 550 < X≤1640 < F | P≤410 < X≤1870 < F | P≤ 240 < X |

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B. Confirmation Test by Wet Chemistry

 Test Method: Total Cadmium, Lead, Mercury, Chromium-Ref. to EN 62321:2009
 Chromium VI – Ref. to EN 62321:2009
 PBBs, PBDEs – Ref. To EN 62321:2009

Testing Period: 2014-05-30 ~ 2014-06-24

Material list:

| Material No. | Material | Color | Test Plan |
|--------------|---------------|---------|--|
| | | | A=Test HM only B=Test FR only C=Test HM+FR |
| 3 | plastic | black | B |
| 12 | metal(copper) | golden | A |
| 13 | metal | silvery | A |

Test result:

| | Cd | Pb | Cr (VI) | Hg | PBBs | PBDEs |
|---------------------------------------|-----|------|---------|------|------|-------|
| Maximum Permissible Limit ppm (mg/kg) | 100 | 1000 | 1000 | 1000 | 1000 | 1000 |

| Material No. | Ppm (mg/kg) | | | | | |
|--------------|-------------|----------------------|------------------|------|-------|-------|
| | Cd | Pb | Cr ^{VI} | Hg | PBBs | PBDEs |
| | MDL (mg/kg) | | | | | |
| | 2 | 2 | 2 | 2 | –(^3) | –(^3) |
| 3 | N.A. | N.A. | N.A. | N.A. | N.D. | N.D. |
| 12 | 82 | 23400 ^(C) | N.A. | N.A. | N.A. | N.A. |

| Material No. | Spot test for Cr VI(^2) | Boiling-water-extraction for Cr(VI) (^2) |
|--------------|-------------------------|--|
| 13 | Negative | Negative |

Abbreviation:

| | |
|--------|--|
| Pb | denotes Lead |
| Cd | denotes Cadmium |
| Hg | denotes Mercury |
| Cr | denotes Chromium |
| Cr(VI) | denotes Chromium(VI) |
| PBBs | denotes Total Polybrominated Biphenyls |
| PBDEs | denotes Total Polybrominated Diphenyl Ethers |
| N.D. | denotes Not Detected |
| MDL | denotes Method Detection Limit |
| N.A. | denotes Not Applicable |
| ^ | The total Chromium have been determined |

Remark:

(^2) The Chromium (VI) content in surface layer has been confirmed with reference to EN 62321: 2009 Annex.

(^3) The method detection limit for each individual PBBs and individual PBDEs are:

| Method Detection Limit in ppm (mg/kg) | | |
|---------------------------------------|--------------------------|---|
| PBBs | Monbromobiphenyl | 5 |
| | Dibromobiphenyl | 5 |
| | Tribromobiphenyl | 5 |
| | Tetrabromobiphenyl | 5 |
| | Pentabromobiphenyl | 5 |
| | Hexabromobiphenyl | 5 |
| | Heptabromobiphenyl | 5 |
| | Octabromobiphenyl | 5 |
| | Nonabromobiphenyl | 5 |
| | Decabromobiphenyl | 5 |
| PBDEs | Monbromodiphenyl ether | 5 |
| | Dibromodiphenyl ether | 5 |
| | Tribromodiphenyl ether | 5 |
| | Tetrabromodiphenyl ether | 5 |
| | Pentabromodiphenyl ether | 5 |
| | Hexabromodiphenyl ether | 5 |
| | Heptabromodiphenyl ether | 5 |
| | Octabromodiphenyl ether | 5 |
| | Nonabromodiphenyl ether | 5 |
| | Decabromodiphenyl ether | 5 |

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6(c) Copper alloy containing up to 4 % lead by weight.

Ningbo Twins Enclosure Co.,Ltd.declare that:

Model 18-1 18-2 18-3 18-4 18-5 18-6 18-7 18-8 18-9 18-10 18-11 18-12 18-13 18-14 18-15 18-17 18-18 18-23 and model 18-16 are the same serials, all components were made by the same raw material but different in shapes and sizes.

TÜV Rheinland / CCIC (Ningbo) Co., Ltd. will not be responsible for this statement.

Sample Photo(s):



18-16



18-6, 18-23



18-10, 18-15



18-3, 18-4, 18-8



18-1, 18-2, 18-13, 18-18

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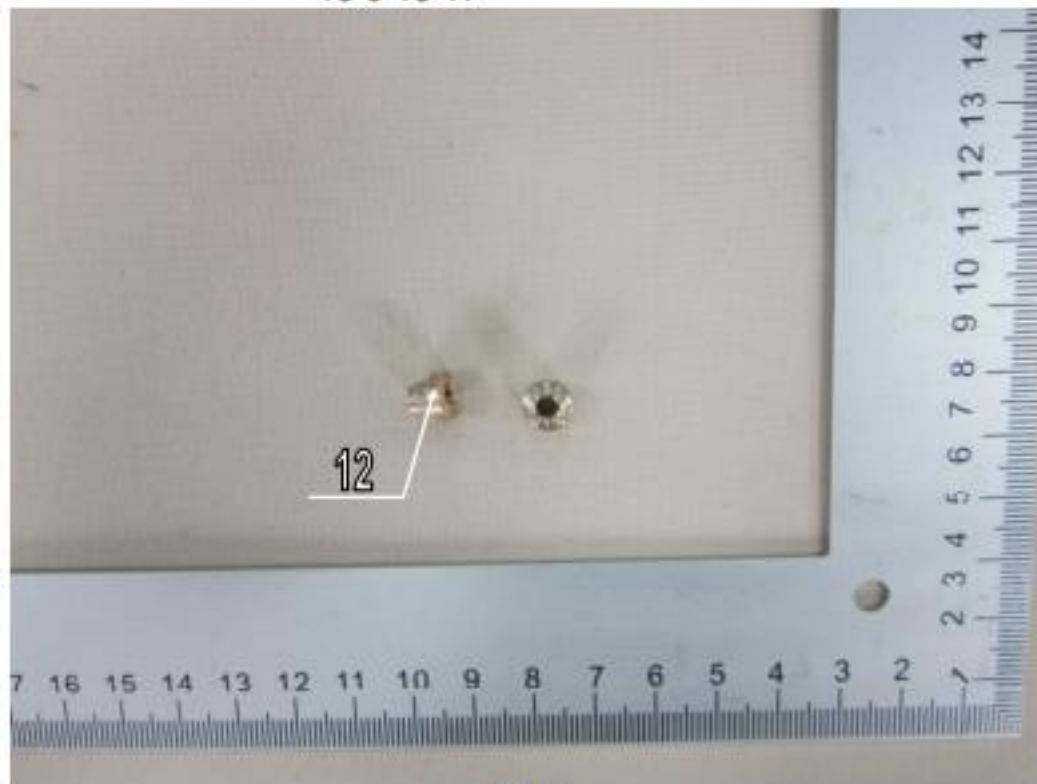
18-14



18-7 18-11 18-9



18-5 18-17



-END-