

**Test Report****No.: 70.404.24.12147.01****Dated: 2024-08-23**

**Applicant:** Xianju Jiaheng Metal Products Factory  
**Address:** Building 3, No. 3 Chunhui East Road, Yongan Industrial Cluster District, Fuying Street, Xianju County, Taizhou City, Zhejiang Province  
**Product Name:** Package box  
**Style No.:** /  
**Item No.:** HXXPB005  
**Buyer:** /  
**Manufacturer:** /  
**Country of Origin:** /  
**Country of Destination:** /  
**Receipt Date of Sample:** 2024-08-07  
**Date of Testing:** From 2024-08-07 to 2024-08-23  
**Sample Submitted:** The sample(s) was (were) submitted by applicant and identified.  
**Test Result:** Refer to the data listed in following pages

**Test Specification(s) or Test Item(s):**

1. EN 13724:2013 Postal services — Apertures of private letter boxes and letter plates — Requirements and test methods and client's requirement

**Conclusions:**

**Pass**  
(See remarks)

**Hardline laboratory****TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch  
Testing Center****Prepared by:**

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**Xu, Shengmiao(Michael)  
Project Handler****Authorized by:**

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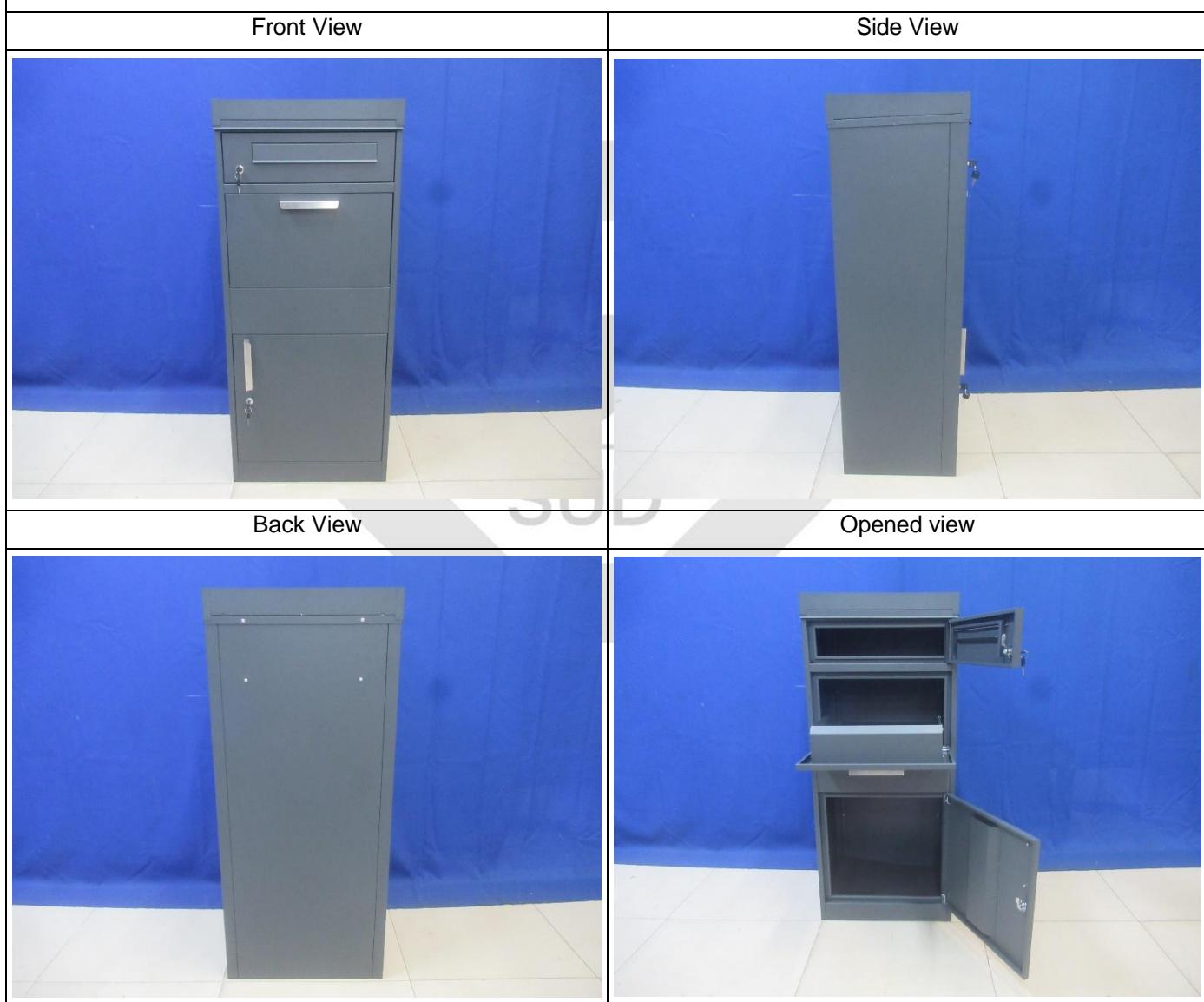
**Gu, Xiaodong(Mark)  
Designated Reviewer****Note:**

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Unless otherwise agreed upon, Pass or Fail verdicts are given based on the measured values without any considerations of measurement uncertainties.  
Please note, every test method has a measurement uncertainty which has been evaluated by the laboratory according to ISO/IEC 17025 requirements. By taking measurement uncertainties into account it might happen that measured values can neither be assessed as Pass nor as Fail.

**Description of the test subject:**

<b>1</b>	<b>Product Description</b>	Package box
<b>2</b>	<b>Dimensions / Weight - HG02137A</b>	L395x W505 x H1175 (mm)/ 31.6 (kg)
<b>3</b>	<b>Type</b>	Type 1
<b>4</b>	<b>Aperture size (for reference)</b>	Size 1
<b>5</b>	<b>Corrosion resistance (for reference)</b>	Grade 3
<b>6</b>	<b>Security grade (for reference)</b>	Grade 1

**HXXPB005**



Corrosion	
HXXPB005	
Before the test	After the test

**Test Results:****1. EN 13724:2013 Postal services — Apertures of private letter boxes and letter plates — Requirements and test methods and client's requirement.**

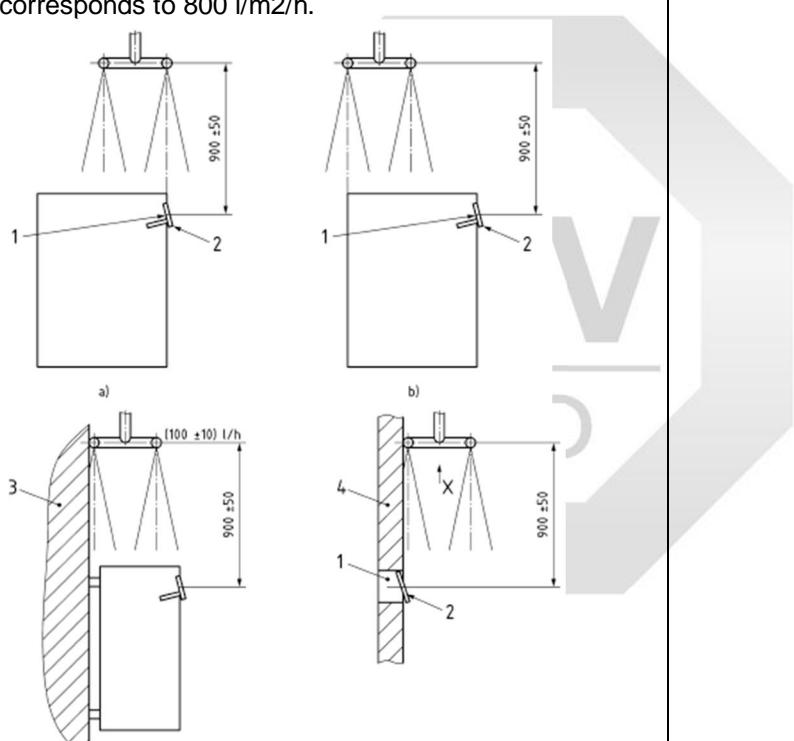
Clause	Test method	Remark	Result																
5.1	<b>General requirements</b> The test methods that shall be used to meet these requirements are described in Clause 6 using the same sequence as below. All items shall be installed in accordance with the manufacturer's fixing instructions as supplied with the product.	Informative.	-																
5.2	<b>Components</b> <b>Clause 6.2</b> Fixing instructions shall be supplied with each individual product enabling the correct installation in accordance with this standard. The aperture shall be fitted with a flap. This is not necessary if the components are specified for indoor use only.	Fixing instruction not received.	N/A																
5.3	<b>Dimensions</b> <b>Clause 6.3</b> The dimensions are measured at 90° to the introducing direction (see Figure 1). The accuracy of the measuring instrument shall have a tolerance of less than $\pm 0,5$ mm.		P																
5.3.1	<b>Aperture dimensions</b> <table border="1"> <thead> <tr> <th>size</th> <th>type 1, 2 and 3 short side of aperture</th> <th>Type 4 Short side of aperture</th> <th>long side of aperture</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>min. 30 mm max. 35 mm</td> <td>min. 30 mm max. 35 mm max. 40 mm<sup>a</sup></td> <td>min. 325, max. 400 mm for widthwise posting of gauge 1 envelopes</td> </tr> <tr> <td>2</td> <td>min. 30 mm max. 35 mm</td> <td>min. 30 mm max. 35 mm max. 40 mm<sup>a</sup></td> <td>min. 230, max. 280 mm for lengthwise posting of gauge 1 envelopes</td> </tr> <tr> <td>3</td> <td>min. 35 mm max. 45 mm</td> <td></td> <td>min. 325, max. 400 mm for widthwise posting of gauge 1 envelopes only valid for type 1,2 and 3</td> </tr> </tbody> </table> <p><sup>a</sup> The maximum size of the short side of the aperture can be 40 mm, but only when the distance required in 5.7.3 is at least 680 mm.</p>	size	type 1, 2 and 3 short side of aperture	Type 4 Short side of aperture	long side of aperture	1	min. 30 mm max. 35 mm	min. 30 mm max. 35 mm max. 40 mm <sup>a</sup>	min. 325, max. 400 mm for widthwise posting of gauge 1 envelopes	2	min. 30 mm max. 35 mm	min. 30 mm max. 35 mm max. 40 mm <sup>a</sup>	min. 230, max. 280 mm for lengthwise posting of gauge 1 envelopes	3	min. 35 mm max. 45 mm		min. 325, max. 400 mm for widthwise posting of gauge 1 envelopes only valid for type 1,2 and 3	Size type 1: Short side of aperture: 31mm Long side of aperture: 326mm	For reference
size	type 1, 2 and 3 short side of aperture	Type 4 Short side of aperture	long side of aperture																
1	min. 30 mm max. 35 mm	min. 30 mm max. 35 mm max. 40 mm <sup>a</sup>	min. 325, max. 400 mm for widthwise posting of gauge 1 envelopes																
2	min. 30 mm max. 35 mm	min. 30 mm max. 35 mm max. 40 mm <sup>a</sup>	min. 230, max. 280 mm for lengthwise posting of gauge 1 envelopes																
3	min. 35 mm max. 45 mm		min. 325, max. 400 mm for widthwise posting of gauge 1 envelopes only valid for type 1,2 and 3																
5.3.2	<b>Smaller apertures – Types 1, 2 and 3</b> Where letter items can be delivered by another means than through the aperture, the aperture dimensions may be smaller than the dimensions given above. The means shall be designed so that, when opened, the size of the opening shall meet the minimum requirement above. The means shall fulfil the appropriate requirements of Clause 5.	Not smaller aperture.	N/A																
5.3.3	<b>Gauge mail</b> It shall be possible to push gauge mail through the aperture without folding or damaging it. It shall be possible to empty gauge mail from a private letter box without folding or damaging it (types 1, 2 and 3 only).	Both gauge 1&2 could be pushed through the aperture without folding or damaging it, and emptied from a private letter box	P																



	<p>Four different gauge postal items are identified:</p> <p>a) Gauge 1 (flexible): 229 mm x 324 mm x 24 mm with a tolerance of 01– mm.</p> <p>The envelope shall be filled with 210 mm x 297 mm papers with a mass per area of 80 g/m<sup>2</sup>;</p> <p>b) Gauge 2 (solid): 138 mm x 225 mm x 20 mm;</p> <p>c) Gauge 3 (solid): 273 mm x 238 mm x 20 mm;</p> <p>d) Gauge 4 (solid): 229 mm x 324 mm x 34,5 mm.</p> <p>Gauge 3 and 4 shall be used for aperture size 3 only.</p> <p>Gauge 2, 3 and 4 shall be made of an inflexible material, with a tolerance of <math>\pm 0,2</math> mm.</p>	without folding or damaging it.	
5.4	<b>Ergonomics and safety</b> <b>Clause 6.4</b>		-
5.4.1	<b>Installation height of the aperture and lock</b> <b>Clause 6.4.1</b> The accuracy of the measuring instrument shall have a tolerance of $\pm 2$ mm.	Aperture height: 1025mm Lock height: 1000mm	P
5.4.1.1	<b>Compliance</b> The information stated under 5.4.1 shall form part of the installation instruction. Failure to comply with the installation requirements shall result in non-conformity with this standard.		
5.4.1.2	<b>Aperture</b> The installation height of the aperture shall be according to national legislation and regulation, where available.		
5.4.1.3	<b>Lock</b> The installation height of the locks axis of all individual types 1, 2 and 3 shall be within 900 mm and 1 300 mm. In case of sets of types 1, 2 and 3 at least 30 % of the locks should have their axis within 900 mm and 1 300 mm. This information shall be included in the installation instructions.		
5.4.2	<b>Safety</b> <b>Clause 6.4.2</b> To avoid injuries, all components that can be reached when inserting or removing a letter post item shall not have sharp edges.	No sharp edges were found.	P
5.4.3	<b>Opening force of the flap</b> <b>Clause 6.4.3</b> The force shall be determined by means of a measuring device with a tolerance of $\pm 0,25$ N. The force required to fully open the flap shall not exceed 8 N.	Opening force: 3N	P



5.4.4	<b>Closing of the flap</b> <b>Clause 6.4.4</b> <p>The flap shall be self-closing after a letter post item has been inserted.  It shall be tested if the flap is self-closing, before and after the corrosion test mentioned under 6.6.1 has been performed.</p>	<p>The flap is self-closing after a letter post item has been inserted, when tested before and after the corrosion test.</p>	P
5.4.5	<b>Fire protection regulations</b> <p>The component materials and the location for types 1, 2, 3 or 4 and/or installation within any building shall be in accordance with the requirements for fire protection in staircases and access routes provided for rescue operations as laid down in the relevant planning laws and building regulations.</p>	<p>No fixing instruction or material claiming was given.</p>	N/A
5.4.6	<b>Easy removal</b> <p>Means shall be available (e.g. as an optional extra) to ensure that an easy removal of postal items laying flat on a horizontal surface inside type 1, 2 or 3, is possible.</p>	<p>The aperture could be opened through doors.</p>	P
5.5	<b>Confidentiality</b> <p>Types 1, 2 and 3 should be provided without a sight window. If a sight window is requested, it shall be translucent.</p>	<p>No sight window.</p>	P
5.6	<b>Corrosion and water penetration</b>		
5.6.1	<b>Corrosion</b> <b>Clause 6.6.1</b> <p>The testing of aperture components shall be carried out in accordance with EN 1670, and shall refer to functionality and appearance.  Corrosion resistance shall be in accordance with EN 1670.  Aperture components of types 1, 3 and 4 shall meet grade 3 or 4.  For type 2 the corrosion resistance may be grade 0.</p>	<p>Type 1:  Tested corrosion grade: 3</p>	For reference
5.6.2	<b>Water penetration</b> <b>Clause 6.6.2</b> <p>The product shall be mounted according to the manufacturer's instructions without any modification. Tests shall be carried out at a temperature between 10 °C and 30 °C. The environment shall be free from draughts.  Types 1 and 3 shall be exposed to a rain test in accordance with Figure 4. A sample shall be tested in position 1 and position 2. The duration of each test shall be 5 min. On conclusion of the test, the specimen shall be dried on the outside and opened. The volume of penetrated water shall not exceed 1 cm<sup>3</sup>.  Types 1, 3 and 4 shall be exposed to a rain test in</p>	<p>No obvious penetrated water was found.</p>	P

	<p>accordance with Figure 5. The duration of the rain test shall be 10 m. On conclusion of the test, the specimen shall be dried on the outside and opened. The volume of penetrated water shall not exceed 1 cm<sup>3</sup>. The volume of the penetrated water shall be measured with water-absorbent material, the weight of which shall be taken before and after absorption of the water. The accepted volume shall be 1 cm<sup>3</sup>. The accuracy of the measuring instrument shall have a tolerance of less than <math>\pm 10\%</math>.</p> <p>The design of the rain shower test device that shall be used is shown in Figure 6. It consists of a welded H-shaped construction of <math>\frac{1}{2}</math>" threaded galvanised pipe with a wall thickness of <math>(2,6 \pm 0,15)</math> mm. The rain shower test device has 42 outflow holes. The water outflow during a test shall be <math>(100 \pm 10)</math> l per hour. This corresponds to 800 l/m<sup>2</sup>/h.</p> 		
5.7	<b>Security</b>		
5.7.1	<p><b>Security requirements</b>            The requirements in this clause are intended to make the theft of letter post items more difficult. For type 4, additional requirements are given to reduce the risk of unauthorised access through the aperture.</p>	Informative.	-
5.7.2	<p><b>Theft prevention - types 1, 2 and 3</b>  <b>Clause 6.7.2</b></p>	Distance from the aperture side: <260mm	P



	<p>Where the aperture is smaller than the dimensions stated in Table A.1 but wide enough to remove a letter post item whose smallest dimension (length or width) is 90 mm, the minimum distance of 130 mm between the aperture and a 40 mm high pile of letter post items shall be measured from the top of the pile to the nearest point of the aperture.</p> <p>The accuracy of the measuring instrument shall be within <math>\pm 1</math> mm.</p> <p>If the distance between a 40 mm high pile of letter post and the bottom of the aperture is less than 260 mm, the aperture shall be provided with a security attachment which makes access to and removal of letter post item(s) more difficult (see Figure 2). If the security attachment is not in place, the security grade is 0.</p> <p>Where the aperture conforms to Table A.1 and if the distance, as shown in the theft prevention requirements and shown in Figure 2a), is less than 260 mm, the width of the security attachment shall be at least 15 mm. The distance between the rear edge of the security attachment and a 40 mm pile of letter post items with a size of 229 mm x 324 mm shall be at least 5 mm. The design of the security attachment shall be such that, when referred to the main axis of the letter post item, it has a positive angle of incidence and prevents access to the letter post item without auxiliary means and without the use of force (see Figure 1).</p> <p>If an aperture with or without a flap is smaller than indicated in Table A.1 - but of a size which makes it possible to remove letter post item(s) whose smallest dimension (length or width) is 90 mm - then the aperture shall be positioned in such a way that the distance between the aperture and the 40 mm high pile of letter post items shall be at least 130 mm (see Figure 2).</p> <p>If the distance shown in Figure 2 between the aperture and the 40 mm high pile of letters is less than 130 mm, and if the aperture size is size 3, the security grade is 0. Figure 2 shows the necessary distances for theft prevention.</p>	Width of the security attachment: 16mm	
5.7.3	<p><b>Theft prevention - type 4</b></p> <p><b>Clause 6.7.3</b></p> <p>If the minimum distance between the aperture and the receiving floor level is less than 680 mm, the same requirements as stated for types 1, 2 and 3 shall be satisfied (see 5.7.2 and 6.7.2).</p> <p>The following requirements shall form part of the installation instructions (see also Table A.1 and Figure 2):</p> <p>If the distance between the bottom of the aperture and the receiving floor level is at least 680 mm, the</p>	Not type 4.	N/A



	<p>maximum aperture height may be 40 mm and a security attachment shall not be required. For distances less than 680 mm, the aperture shall be provided with a security attachment, as shown in Figure 2c), which makes access to and removal of letter post item(s) more difficult. Failure to comply with these installation requirements shall result in non-conformity with this standard.</p>		
5.7.4	<p><b>Security and locks - types 1, 2 and 3</b>  <b>Clause 6.7.4</b>  The construction of the box door and the lock shall be tested for resistance to mechanical forces on a test device in compliance with the following description:  The test device (see Figure 7) consists of a horizontal wire with an integrated tension spring and a deflection pulley, from which a mass (m) of 15 kg for grade 1 and 22 kg for grade 2 (equivalent to a tensile force of 150 N for grade 1 and 220 N for grade 2) is suspended. By actuating a release mechanism, the weight drops an unobstructed distance of 300 mm after which it starts to act on the spring as a tensile force.  The spring travel (f) shall amount to 50 mm and the total drop of the weight shall be 350 mm, limited by a stop plate.  The spring rates shall be as follows:</p> $\text{grade 1 spring rate } c = \frac{150 \text{ N}}{50 \text{ mm}} = 3,0 \text{ N.mm}^{-1} \quad \text{tolerance } \pm 0,15 \text{ N.mm}^{-1}$ $\text{grade 2 spring rate } c = \frac{220 \text{ N}}{50 \text{ mm}} = 4,4 \text{ N.mm}^{-1} \quad \text{tolerance } \pm 0,15 \text{ N.mm}^{-1}$ <p>On testing doors:  — with an aperture, the test device shall be fastened in the middle of the aperture (see part a of Figure 8);  — without an aperture, the test device shall be fastened at the top edge of the door and at a distance of 25 % of the door width from the outer edge of the side opposite to the hinge side (see part b of Figure 8). The spring should be fastened to the door with a M6</p>	<p>Type 1:  Tested security grade 1:  After the test, the permanent deformation is less than 2 mm.  For key differs:  No claim was given from the manufacturer.</p>	For reference

<p>size nut and screw. A plain washer with a maximum outer diameter of 12,8 mm can be used additionally. The objective of the test is to check the test specimen for any permanent deformation. Types 1, 2 and 3 private letter boxes shall have adequate strength to resist mechanical forces in accordance with security grades 1 or 2:</p> <ul style="list-style-type: none"> <li>a) grade 1 shall resist a tensile force of 150 N;</li> <li>b) grade 2 shall resist a tensile force of 220 N.</li> </ul> <p>After the test, the permanent deformation shall be not more than 2 mm for both grades.</p> <p>Two grades of private letter box door locks are identified which refer to the number of key differents.</p> <ul style="list-style-type: none"> <li>c) security grade 1 shall have a minimum of 200 key differents.</li> <li>d) security grade 2 shall have a minimum of 500 key differents.</li> </ul> <p>The manufacturer of the private letter boxes shall ensure that the specified key differents are available and used. It is not sufficient that the lock has the theoretical possibility of the specified key differents.</p>		
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5.7.5	<b>Protection against the opening of doors and windows - type 4</b> <b>Clause 6.7.5</b> The tolerance of the measuring tape shall be $\pm 1$ mm. The following requirements shall form part of the installation instructions: A letter plate shall not be fitted within 400 mm of a door or window lock unless an auxiliary locking device is also fitted more than 400 mm from the letter plate. If the door or window can be locked from the inside with a key and the key withdrawn, these requirements do not apply. If a box is placed behind the letter plate, it shall meet all the requirements for types 1, 2 and 3. Failure to comply with these installation requirements shall result in non-conformity with this standard.	Not Type 4.	N/A
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**Abbreviation:** P=Pass; F=Fail; N/A = Not Applicable; N/T=Not Tested; N/R=Not Requested

**Remark:**

1. The sample has been examined according to the client's requirement.
2. Only the aperture part for envelopes was tested, the other parts e.g. package posting box were out of scope and thus not tested.
3. There are no claiming aperture sizes, corrosion resistance and security level from customer, so the results are for reference.

-End of Test Report