

Report number: HGCJ190801001

TEST REPORT

Sample Description: PVD SINK

Applicant: Purchasing Department

Test Type: Internal Inspection

Date of inspection: 2019-8-2~8-15



FOSHAN SHUNDE HIGOLD HARDWARE PRODUCT

MANUFACTURING CO., LTD.



DECLARATION

1. The test report is invalid without the official stamp of the testing institute.
2. The test report is invalid without the signatures or stamps of the testing.
3. The test report is invalid if scribbled or altered.
4. Any partial photocopy of the test report is not allowed without written permission of the testing institute. Any modification, improper or illegal use of the test report is prohibited.
5. Any dispute of the test result must be raised to the testing institute within 15 days after receiving, otherwise it is taken as no objection (except otherwise stipulated).
6. The result of the commission test is only corresponding to the sample(s).

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Product Name	PVD Matt Black Sink	Production Date	2019-7-31
Model Specification		Batch No. or Lot No.	
Applicant	Purchasing Department	Test Type	Commission Inspection
Applicant Address	Purchasing Department	Number of Samples	1
Manufacturer	HIGOLD	Sampling Base	1
Sampling Mode Sender/Sampler	Sample Delivery	Date of Sampling	July 31, 2019
Place of Sampling	Laboratory at 3rd Workshop	Date of Inspection	August 15, 2019
Sample Characteristics and Status		Sample is intact	
Inspection and Judgment Basis	According to the quality standards of HIGOLD for PVD sink. The inspection items meet the requirements.		
Test Results	The items inspected meet the requirements of HIGOLD for PVD sink quality standards.		
Remarks	1. “_____” means not applicable; 2. The test results are only responsible for the sample; 3. Inspection date: 2019-8-2~8-15.		
Main Inspector: Jinghui Zou August 15, 2019		Testing Unit: Test Laboratory of FOSHAN SHUNDE HIGOLD HARDWARE PRODUCT MANUFACTURING CO., LTD.	
Verifier: Guibin Liao August 15, 2019			
Approver: Julin Yu August 15, 2019			

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No.	Inspection Item	Inspection Basis and Requirements	Terms	Test Results	Analysis and Judgment
1	Visual inspection	The color of the PVD on the A, B, C and D sides of the water tank should be the same. The base color of the 304 stainless steel raw materials should be confirmed by reference to the sample. The visual difference cannot be obvious.	9.3	Color consistent without obvious color difference	Qualified
2	Corrosion resistance test	After the 24-hour acid salt spray test according to the standard GB/T 10125, the sink products should meet the requirements of the above-mentioned standard of grade 9 (inclusive) in GB/T 6461.	10.5	Level 10	Qualified
3	Hundred grid test	Use a tungsten carbide steel knife and a steel ruler or a hundred-square knife to cut a 10×10mm square on the surface of the workpiece to be tested. When the grid is cut, the edge is perpendicular to the surface of the coating. The scratch spacing is 1mm, and the depth should be enough to penetrate the coating. The plating layer will not be embedded in the substrate, and the surface of the scratched workpiece will be wiped off, and then adhered to the cutting surface of the workpiece to be tested with 3M tape (adhesion force (10±1)N/25mm), and rubbed with an eraser or a finger. Press and hold the tape against the surface of the workpiece being tested. After 1 min, the tape was pulled away quickly in the direction of 45° from the surface of the workpiece. To view the workpiece, the required level must be level 1 or above.	10.6	0	Qualified
4	Thermal shock test	Place the metal PVD product in constant temperature and humidity at 150 °C ± 10 °C for 7 hours, take it out and put it into 18-25 °C clean water and cool it thoroughly. The test piece should not be blistering, wrinkling, cracking or peeling.	10.7	No blistering, wrinkling, cracking or peeling.	Qualified
5	Color change resistance test	The PVD product is placed in a constant temperature and humidity chamber at 100 °C ± 1 °C for 24 h ± 10 min.	10.8	No discoloration	Qualified
6	Coating pencil hardness test	The tip of the pen is pressed against the surface of the workpiece to be measured at an angle of 45°, and at least 7 mm is pushed forward (away from the operator) by a force (about 750 g load) at a speed of 0.5 mm/s to 1 mm/s. Long straight line segment distance. The hardness is increased sequentially by 4H-9H until a scratch of at least 3 mm is present. After 30s, the pencil marks on the workpiece are wiped clean with a soft cloth or rubber, and the hardness of the coating is required to be at least 8H.	10.9	9H	Qualified
7	Alkali resistance test	At room temperature, remove the mixture of detergent and water (volume 1:30) into the water tank. The water level completely covers the bottom of the water tank for more than 20mm, so that the water tank can be fully immersed for 48 hours. After draining the water, gently wash or impregnate with flowing cold water. In order to remove the mixed liquid on the surface of the sample, dry it with a blower and check it. The coating is required to be free from peeling, and the color around the water tank is not colored.	10.10	There is no peeling of the coating, and there is no color difference around the sink.	Qualified
8	Abrasion test	The steel ball + load is 500g, and the PVD product or the coated swatch is reciprocally rubbed 500 times (the round-trip count is 1 time), and every 100 observations, the coating is observed to fall off.	10.11	Slight scratches, no peeling off of the coating, peeling	Qualified

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No.	Inspection Item	Inspection Basis and Requirements	Terms	Test Results	Analysis and Judgment
9	Resistance to weather fastness test	The metal PVD product is stored in constant temperature and humidity at $-25\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ for 3 hours, then rapidly transferred to $150\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ for 3 hours for one test cycle, continuous two cycles of thermal cycle impact test, The test piece shall not have blistering, wrinkling, cracking or peeling.	10.12	No blistering, wrinkling, cracking or peeling.	Qualified


Annex Photos:

Test Item	Test Process Photo	Result
External assessment		Qualified
Corrosion resistance test		Qualified

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Test Item	Test Process Photo	Result
Hundred grid test		Qualified
Thermal shock test		Qualified
Color change resistance test		Qualified

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Test Item	Test Process Photo	Result
Coating pencil hardness test	 <p>The photo shows a coating pencil hardness test setup. On the left, a testing machine is shown with a pencil being applied to a metal surface. On the right, three metal panels are shown with the results of the test, which appear to be intact and without visible damage.</p>	Qualified
Alkali resistance test	 <p>The photo shows an alkali resistance test. On the left, there is a green bottle of cleaning solution and two measuring jugs. On the right, a metal cabinet is shown with the text "48H抗碱性试验" (48H Alkali Resistance Test) overlaid in red. The cabinet appears to be in good condition after the test.</p>	Qualified
Abrasion test	 <p>The photo shows an abrasion test. On the left, a metal surface is being abraded with a brush. On the right, two metal panels are shown with the results of the test. The text "300次测试" (300 tests) and "500次测试后" (after 500 tests) is overlaid in red, indicating the number of tests performed. The metal surfaces appear to be in good condition after the tests.</p>	Qualified

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Test Item	Test Process Photo	Result
Resistance to weather fastness test		Qualified
		Qualified
		Qualified