

Test Report

Verified Code:665924

Report No.:H202403271022-04EN

Customer: ProTech CO., Ltd

Address: No. 18, Baoying Road, Dawang High-Tech District, Zhaoqing, Guangdong

Sample Name: SINORA HARD SHELL

Sample Model: SIN-07146-28BK

Receive
Sample Date: Mar.28,2024

Test Date: Apr.02,2024 ~ Apr.13,2024

Reference
Document: According to ISO 20653:2013

Test Result: Please refer to page 4 of the report for details

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Summary of Test Information

No.	Item Name	Test Standard	Test Result	Page
1	IP6X	ISO 20653:2013	Meet a requirement	Page 6
2	IPX7	ISO 20653:2013	Meet a requirement	Page 9

----- The following blanks -----

1 IP6X

1.1 Test Condition

According to ISO 20653:2013.

1.1.1 Before the test: Check the appearance of sample.

1.1.2 Dustproof test:

1.1.2.1 Degrees of protection against access: use a metal probe with a diameter of 1.0mm to detect the shell of the tested product with a force of $1N \pm 0.1N$.

1.1.2.2 Degrees of protection against foreign objects: fix the tested product in the test box and carry out the test according to the items in Table 1-1.

1.1.3 After the test: Check the appearance of the sample.

Table 1-1 Dustproof test conditions

Test dust	Dosage of dust	Test time
Arizona powder	2kg/m ³	6s blowing dust, 15min standing, this is a cycle, running 20 cycles

1.2 Sample Information

Sample information is shown in Table 1-2.

Table 1-2 Sample Information

Sample Name	Sample Model	Quantity	Test No.
SINORA HARD SHELL	SIN-07146-28BK	1 pc	H202403271022-0004

1.3 Test Requirements

According to ISO 20653:2013.

The rigid test wire (diameter 1.0 mm) shall not penetrate, and dust shall not penetrate.

1.4 Test Result

The test result are shown in Table 1-3.

Table 1-3 Test Result

Test No.	Test Results	Conclusion
H202403271022-0004	The 1mm metal probe did not enter the sample shell, and no dust entered the inside of the subject after the test	Meet the requirement

1.5 Test Photos



Fig.1-1 Sample appearance inspection before test



Fig.1-2 Sample appearance inspection after test



Fig.1-3 Sample appearance inspection before test



Fig.1-4 Sample unpacking inspection after test



Fig.1-5 Metal probe inspection before test



Fig.1-6 Test sample placement

----- The following blanks -----

2 IPX7

2.1 Test Condition

According to ISO 20653:2013.

2.1.1 Before the test: Check the appearance of sample.

2.1.2 Waterproof test: Fix the sample in the dipping tank and test according to the conditions listed in Table 2-1.

2.1.3 After the test: Check the appearance of the sample.

Table 2-1 Waterproof test conditions

Distance between the highest point of the box body and the water surface	Test time
1000mm	Soak 30min

2.2 Sample Information

Sample information is shown in Table 2-2.

Table 2-2 Sample Information

Sample Name	Sample Model	Quantity	Test No.
SINORA HARD SHELL	SIN-07146-28BK	1 pc	H202403271022-0004

2.3 Test Requirements

According to ISO 20653:2013.

Water shall not penetrate in a quantity causing harmful effects or impair performance if the enclosure is immersed in water tempo-rarily under specified pressure and time conditions.

2.4 Test Result

The test result are shown in Table 2-3.

Table 2-3 Test Result

Test No.	Test Results	Conclusion
H202403271022-0004	After the experiment, there is no water inside the measured object.	Meet the requirement

2.5 Test Photos



Fig.2-1 Sample appearance inspection before test



Fig.2-2 Sample appearance inspection after test



Fig.2-3 Sample unpacking inspection before test



Fig.2-4 Sample unpacking inspection after test



Fig.2-5 Test sample placement

3 Test Instrument & Equipment

List of instruments for testing equipment					
No.	Testing item	Equipment	Type	Serial No.	Calibration valid date
1	Dustproof test (IP6X)	Dust test chamber	GT1321	GT20170703001	2023-12-16~2024-12-15
		IP4X test sonde	CX-T4D	CX1807237	2024-03-23~2025-03-22
2	Waterproof test (IPX7)	Water tank	/	/	/
		Steel rule	0~1000mm	2482515	2024-02-21~2025-02-20
		Stopwatch	PC396	949696	2023-06-06~2024-06-05

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