

Test Report

Verified Code:219555

Report No.:H202505081935-10EN

Customer: ProTech CO., Ltd

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

Sample Name: SINORA HARD SHELL

Sample Model: SIN-05542-16BK-E

Receive
Sample Date: May.09,2025

Test Date: May.25,2025

Reference
Document: ISO 20653:2013

Test Result: Meet the requirements

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Issued Date: 2025/6/19

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Test type	☒ Commissioning Test ☐ Routine test ☐ DV ☐ ECV ☐ PV ☐ OTS ☐ R&D test ☐ Others_____			
Sample Source	☒ Commissioned units send sample ☐ Others:			
Sample	Model	Quantity	Sample No.	Test No.
SINORA HARD SHELL	SIN-05542-16BK-E	1pc	/	H202505081935-0010
Sample Components and Accessories	Components: / Accessories: /			
Test with packaging or not	☐ Yes, Outer Packing _____ ☒ No			
Sample quality before test	☒ Conformity Product ☐ Non-conformity Product ☐ Prototype ☐ Others			
Abnormal condition of sample before test	No Abnormalities			
Environmental requirements	Temperature: 23.9℃~24.5℃ Relative Humidity:45%RH~48%RH Atmospheric pressure:101.3kPa			
Test Address	No. 698 Yaohu West 6th Road, High-tech Zone,Nanchang City,Jiangxi China			

1 Dustproof test (IP6X)

1.1 Test Condition

According to ISO 20653: 2013.

1.1.1 Test method:

1.1.2. Anti-contact protection grade: Use a 1.0mm diameter metal wire to detect the casing of the test subject with a force of $1N \pm 0.1N$.

1.1.3 Foreign object protection grade: Place the test sample in the test chamber and conduct the test according to the conditions in Table 1-1.

Table 1-1 Dustproof test conditions

Test dust	Dust usage	Test time
Arizona powder	2kg/m ³	Take 6 seconds of dust raising and 15 minutes of static rest as one cycle, and run for 20 cycles

1.2 Sample Information

Sample information is shown in Table 1-2.

Table 1-2 Sample Information

Sample Name	Model	Quantity	Test No
SINORA HARD SHELL	SIN-05542-16BK-E	1pc	H202505081935-0010

1.3 Test Requirements

According to ISO 20653: 2013.

Before the test, a 1mm metal probe must not enter the sample shell. After the test, no dust should seep into the interior of the sample.

1.4 Test Result

The test result is shown in Table 1-3.

Table 1-3 Test Result

Test No.	Test result	Conclusion
H202505081935-0010	Before the test, the 1mm metal probe did not enter the sample shell. After the test, no dust seeped into the interior of the sample.	Meet the requirements

1.5 Test Photos

	
Fig 1-1 Sample before test	Fig 1-2 Sample after the test
	
Fig 1-3 Pre-test detection (uninserted)	Fig 1-4 Test setup

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Fig 1-5 Internal inspection after the test (no dust entry)	/

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2 Waterproof test (IPX7)

2.1 Test Condition

According to ISO 20653: 2013.

Fix the sample in the immersion pool, with the lowest point of the box at a distance of 1000mm from the water surface. Test duration: 30 minutes.

2.2 Sample information

The sample information is shown in Table 2-1.

Table 2-1, sample information

Sample Name	Sample Model	Sample Quantity	Test No
SINORA HARD SHELL	SIN-05542-16BK-E	1pc	H202505081935-0010

2.3 Test Requirements

According to ISO 20653: 2013.

After the test, there should be no excessive water seepage inside the sample.

2.4 Test Result

The test result is shown in Table 2-2.

Table 2-2 Test Result

Test No.	Test result	Conclusion
H202505081935-0010	After the test, no water seepage occurred inside the sample.	Meet the requirements

2.5 Test Photos

	
Fig 2-1 Sample before test	Fig 2-2 Sample after the test
	
Fig 2-3 Test setup	Fig 2-4 Internal inspection after the test (no dust entry)

3 Test Instrument & Equipment

List of Instrument for Testing Equipment					
No.	Testing Item	Instrument/Equipment	Type	Serial No.	Calibration Valid Date
1	Dustproof test (IP6X)	IP3X test probe	SHQG-C3N	ACSH-SYS-063	2024-06-21~2025-06-20
		Sand and dust test chamber	CZ-1500SC-ZK	ACSH-SYS-001	2024-06-21~2025-06-20
2	Water resistance test (IPX7)	IPX78 water immersion pressure test machine	XR-IPX78-600	HJ-20	2024-06-21~2025-06-20
		Tape measure	XD-D89	FZ-69	2024-06-21~2025-06-20