Test Report

Verified code:118727

Report No.:H202003162195-01EN

Customer：	Foshan Nanhai Heli Plastic Products Co. Ltd.
Address：	No. 9 Henger Road, Hegui Industrial Park, Nanhai Foshan, Guangdong
Sample description：	SINORA hard shell case UL94 type,Sample piece of the case wall
Sample model：	PP with fire retardant additive
Reference document：	UL 94-2013
Receive sample date：	May. 07, 2020
Test date：	May. 07, 2020~May. 09, 2020
Test result：	Meet the requirements

Prepared by	LiuQingliang	Reviewed by	Zhang Hua Ming	Approved by	TangJin
Prepared by	Liu Qingliang	Reviewed by	Zhang Huaming	(Deputy Director)	TangJin

GUANGZHOU GRG METROLOGY & TEST CO., LTD

Issued Date： 2020/5/13

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Statement

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6. This test is only responsible for incoming samples, and the report is only valid for this test.

TEST REPORT

Test source	☑Commissioning test ☐Type test ☐Finalization test ☐Mandatory test ☐PV ☐DV ☐ECV ☐Others			
Sample source	☑Commissioned units send sample ☐Others:			
Sample	Model	Quantity	Sample No.	Test No.
SINORA hard shell case UL94 type,Sample piece of the case wall	PP with fire retardant additive	10pcs	/	H202003162195-1#~ H202003162195-10#
Sample components and accessories	Components：/		Accessories：/	
Packing status	☐Outer Packing _____		☑No packing	
Sample quality before test	☑Conformity product ☐Non-conformity product ☐Prototype ☐Others			
Abnormal condition of sample before test	No abnormalities			
Environment condition	Temperature：28.3℃~33.6℃		Relative humidity：58%~64%	
Test address	Shenzhen laboratory: 12 Qinghua Rd., Guanlan street, Longhua district, Shenzhen			

1 Flammability test

1.1 Test condition

1.1.1 Test basis: UL94-2013;

1.1.2 Check the appearance of the sample before test;

1.1.3 Test pretreatment: The test samples were placed at a temperature of (23 ± 2) ℃ and a relative humidity of (50 ± 10)% for 48 h;

1.1.4 Clamp the specimen from the upper 6 mm of the specimen, with the longitudinal axis vertical, so that the lower end of the specimen is (300±10)mm above a horizontal layer of not more than 0.08g of absorbent 100 percent cotton thinned to approximately 50mm x 50mm and a maximum thickness of 6 mm;

1.1.5 Tilt the burner to an angle of 45°±5° perpendicular to the wide face of the specimen, adjust the burner to produce a blue flame (20±1)mm high, adjust the distance so that the midpoint of the lower edge of the sample is (10±1)mm away from the top of the burner. After the application of the flame to the specimen for (10±0.5)s, immediately withdraw the burner at a rate of approximately 300 mm/s, to a distance at least 150 mm away from the specimen and simultaneously commence measurement of the afterflame time t_1 to the nearest second.

1.1.6 As soon as afterflaming of the specimen, even if the burner has not been withdrawn to the full 150 mm distance from the specimen, immediately place the burner again under the specimen and maintain the burner at a distance of (10±1)mm from the remaining major portion of the specimen for an additional (10±0.5)s, while moving the burner clear of dropping material. After this application of the flame to the specimen, immediately remove the burner at a rate of approximately 300 mm/s to a distance of at least 150 mm from the specimen and simultaneously commence measurement of the afterflame time, t_2, and the afterglow time t_3 to the nearest second, record t_2 and t_3;

1.1.7 Determine whether the tested product meets the requirements of v-0 according to the following table 1-1.

Table 1-1 V-0 requirements

Request content	V-0 indicator
Afterflame time for individual specimen $t_1$or t_2	≤10s
Total afterflame time for any condition set(t_1 plus t_2 for the 5 specimens)	≤50s
Afterflame plus afterglow time for each individual specimen after the second flame application(t_2+t_3)	≤30s
Did the afterflame or afterglow of any specimen up to the holding clamp	No
Was the cotton indicator ignited by flaming particles or drops	No

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 case UL94 type,Sample piece of the case wall	PP with fire retardant additive	10pcs	H202003162195-1#~ H202003162195-10#
Note: samples from 6# to 10 # have not been tested.			

1.3 Test requirements

1.3.1 Judgment basis: UL94-2013, V-0

1.3.2 After the test, 5 samples should pass the requirements of V-0 in table 1-1.

1.4 Test result

1.4.1 According to the results in table 1-3 below, 5 samples passed the requirements of V-0;

1.4.2 The test results are shown in Table 1-3.

Table 1-3 Test result

Test No.	Afterflame (t_1)	Afterflame (t_2)	Afterglow (t_3)	Afterflame or afterglow up to the holding clamp	Cotton indicator ignited	Conclusion
H202003162195-1#	0	0	0	No	No	Meet the requirements
H202003162195-2#	0	0	0	No	No	Meet the requirements
H202003162195-3#	0	0	0	No	No	Meet the requirements
H202003162195-4#	0	0	0	No	No	Meet the requirements
H202003162195-5#	0	0	0	No	No	Meet the requirements
Note: Because the test result of samples from 1# to 5 # were qualified, the samples from 6# to 10 # haven't been tested.						

1.5 Test photos

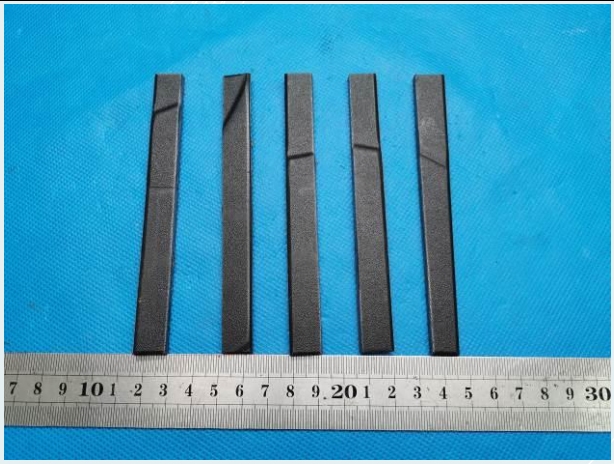

Fig.1-1 Samples before test(1#~5#)

Fig.1-2 Samples after test(1#~5#)

Fig.1-3 Samples before test(6#~10#)

Fig.1-4 Samples after test(6#~10#)

Fig.1-5 Test pretreatment samples placement

Fig.1-6 Test pretreatment condition

Fig.1-7 During test

2 Test equipments

List of instruments for testing equipment					
No.	**Testing item**	**Equipment**	**Type**	**Serial No.**	**Calibration valid date**
1	Flammability test	Temperature and humidity test chamber	CH1000C	161268	2019-05-12~2020-05-11
		Horizontal and vertical burning tester	CRS-HVB	91411	2019-08-17~2020-08-16

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