

Test Report

No. GZHG1503010415HM

Date: Apr 22, 2015

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ZHEJIANG BIO INDUSTRY & TRADE CO., LTD
1269#BADA ROAD, QIUBIN DISTRICT, JINHUA CITY, ZHEJIANG PROVINCE, CHINA.

The following sample(s) was / were submitted and identified on behalf of the client as:

Sample Description : HELMET
Style / Item No. : HY-811
Size : 57cm-58cm
HPI (from basic plane) : 50mm for C DOT
Test Performed : FMVSS 49 CFR 571.218
Sample Receiving Date : Mar 31, 2015
Further Information Receiving Date : Apr 21, 2015
Test Performing Date : Mar 31, 2015 to Apr 21, 2015
Test Result(s) :

Test Requested	Result
FMVSS 49 CFR 571.218 (Exclude clause 5.4)	Pass

Signed for and on behalf of
Guangzhou Branch,
SGS-CSTC Ltd.



Jason Cheung
Approved Signatory



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SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch, Guangzhou Standards Laboratory

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Test Conducted: FMVSS 49 CFR 571.218 (Exclude clause 5.4) Motorcycle Helmets

Test results:

Clause	Test Method/Requirement	Result
5.1	<p>Impact attenuation</p> <p>When an impact attenuation test is conducted in accordance with S7.1, all of the following requirements shall be met:</p> <p>(a) Peak accelerations shall not exceed 400g;</p> <p>(b) Accelerations in excess of 200g shall not exceed a cumulative duration of 2.0 milliseconds; and</p> <p>(c) Accelerations in excess of 150g shall not exceed a cumulative duration of 4.0 milliseconds.</p>	<p>Pass</p> <p>See annex 1</p>
5.2	<p>Penetration</p> <p>When a penetration test is conducted in accordance with S7.2, the striker shall not contact the surface of the test headform.</p>	<p>Pass</p>
5.3	<p>Retention system</p>	
5.3.1	<p>When tested in accordance with S7.3:</p> <p>(a) The retention system or its components shall attain the loads specified without separation; and</p> <p>(b) The adjustable portion of the retention system test device shall not move more than 1 inch (2.5 cm) measured between preliminary and test load positions.</p>	<p>Pass</p> <p>See annex 2</p>
5.3.2	<p>Where the retention system consists of components which can be independently fastened without securing the complete assembly, each such component shall independently meet the requirements of S5.3.1</p>	<p>N/A</p>
5.4	<p>Configuration</p> <p>Each helmet shall have a protective surface of continuous contour at all points on or above the test line described in S6.2.3. The helmet shall provide peripheral vision clearance of at least 105° to each side of the mid-sagittal plane, when the helmet is adjusted as specified in S6.3. The vertex of these angles, shown in Figure 3, shall be at the point on the anterior surface of the reference headform at the intersection of the mid-sagittal and basic planes. The brow opening of the helmet shall be at least 1 inch (2.5 cm) above all points in the basic plane that are within the angles of peripheral vision</p>	<p>N/T</p>
5.5	<p>Projections</p> <p>A helmet shall not have any rigid projections inside its shell. Rigid projections outside any helmet's shell shall be limited to those required for operation of essential accessories, and shall not protrude more than 0.20 inch (5 mm).</p>	<p>Pass</p>
5.6	<p>Labeling</p>	
5.6.1	<p>Each helmet shall be labeled permanently and legibly, in a manner such that the label(s) can be read easily without removing padding or any other permanent part, with the following:</p>	<p>Pass</p>
	<p>(a) Manufacturer's name.</p>	<p>Pass</p>
	<p>(b) Discrete size.</p>	<p>Pass</p>



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SGS-CALIBRATED TESTING SERVICE
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	(c) Month and year of manufacture. This may be spelled out (for example, June 2010), or expressed in numerals (for example, 6/10).	Pass
	(d) Instructions to the purchaser as follows:	Pass
	(1) "Shell and liner constructed of (identify type(s) of materials)	Pass
	(2) "Helmet can be seriously damaged by some common substances without damage being visible to the user. Apply only the following: (Recommended cleaning agents, paints, adhesives, etc., as appropriate)	Pass
	(3) "Make no modifications. Fasten helmet securely. If helmet experiences a severe blow, return it to the manufacturer for inspection, or destroy it and replace it."	Pass
	(4) Any additional relevant safety information should be applied at the time of purchase by means of an attached tag, brochure, or other suitable means	Pass
5.6.2	Certification	
	Each helmet shall be labeled permanently and legibly with a label, constituting the manufacturer's certification that the helmet conforms to the applicable Federal motor vehicle safety standards, that is separate from the label(s) used to comply with S5.6.1, and complies with paragraphs (a) through (c) of this section.	Pass
	(a) Content, format, and appearance. The label required by paragraph S5.6.2 shall have the following content, format, and appearance:	Pass
	(1) The symbol "DOT," horizontally centered on the label, in letters not less than 0.38 inch (1.0 cm) high.	Pass
	(2) The term "FMVSS No. 218," horizontally centered beneath the symbol DOT, in letters not less than 0.09 inches (0.23 cm) high.	Pass
	(3) The word "CERTIFIED," horizontally centered beneath the term "FMVSS No. 218," in letters not less than 0.09 inches (0.23 cm) high.	Pass
	(4) The precise model designation, horizontally centered above the symbol DOT, in letters and/or numerals not less than 0.09 inch (0.23 cm) high.	Pass
	(5) The manufacturer's name and/or brand, horizontally centered above the model designation, in letters and/or numerals not less than 0.09 inch (0.23 cm) high.	Pass
	(6) All symbols, letters and numerals shall be in a color that contrasts with the background of the label.	Pass
	(b) Other information. No information, other than the information specified in subparagraph (a), shall appear on the label.	Pass
(c) Location. The label shall appear on the outer surface of the helmet and be placed so that it is centered laterally with the horizontal centerline of the DOT symbol located a minimum of 1 inch (2.5 cm) and a maximum of 3 inches (7.6 cm) from the bottom edge of the posterior portion of the helmet.	Pass	

Remark: 1. N/A = Not applicable.
2. N/T = Not tested as per client's request.



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Test Report

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Model: HY-811

Size: 57-58 cm

Headform: C DOT

HPI: 50 mm

Annex-1 Impact energy attenuation test:

Test Specification: FMVSS 49 CFR 571.218

Ambient temperature at time of test: 22 °C

Condition	Test Anvil	Test Site	Peak' G	Duration at 150 g(ms)	Duration at 200 g(ms)	Assessment
Ambient (Clause 6.4.1 a) 864g No.1	Flat	Left	160.3	0.67	0.00	Pass
			170.2	2.34	0.00	
	Flat	Rear	170.2	2.43	0.00	Pass
			180.3	3.13	0.00	
	Hemi	Front	106.5	0.00	0.00	Pass
			110.2	0.00	0.00	
	Hemi	Right	123.2	0.00	0.00	Pass
			135.4	0.00	0.00	
HOT (Clause 6.4.1 b) 870g No.2	Flat	Left	150.5	0.71	0.00	Pass
			180.1	1.80	0.00	
	Flat	Rear	160.2	2.18	0.00	Pass
			184.5	3.07	0.00	
	Hemi	Front	103.2	0.00	0.00	Pass
			120.5	0.00	0.00	
	Hemi	Right	98.5	0.00	0.00	Pass
			105.6	0.00	0.00	
Cold (Clause 6.4.1 c) 868g No.3	Flat	Left	160.2	0.59	0.00	Pass
			184.2	2.97	0.00	
	Flat	Rear	170.2	2.74	0.00	Pass
			185.9	3.01	0.00	
	Hemi	Front	102.3	0.00	0.00	Pass
			115.4	0.00	0.00	
	Hemi	Right	93.6	0.00	0.00	Pass
			110.5	0.00	0.00	
Wet (Clause 6.4.1 d) 868g No.4	Flat	Left	135.9	0.00	0.00	Pass
			180.2	2.04	0.00	
	Flat	Rear	184.2	2.44	0.00	Pass
			220.1	2.88	1.33	
	Hemi	Front	117.8	0.00	0.00	Pass
			152.3	0.00	0.00	
	Hemi	Right	99.9	0.00	0.00	Pass
			120.4	0.00	0.00	



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Annex-2 Retention system strength test results:

Test Specification: FMVSS 49 CFR 571.218

Ambient temperature at time of test: 22 °C

Condition	Max. extension (mm)	Assessment
Ambient (Clause 6.4.1 d) No.1	13.4	Pass
Hot (Clause 6.4.1 d) No.2	14.5	Pass
Cold (Clause 6.4.1 d) No. 3	14.2	Pass
Wet (Clause 6.4.1 d) No.4	13.7	Pass

Sample Photo(s):



<p>Side view</p>	
<p>Back view</p>	



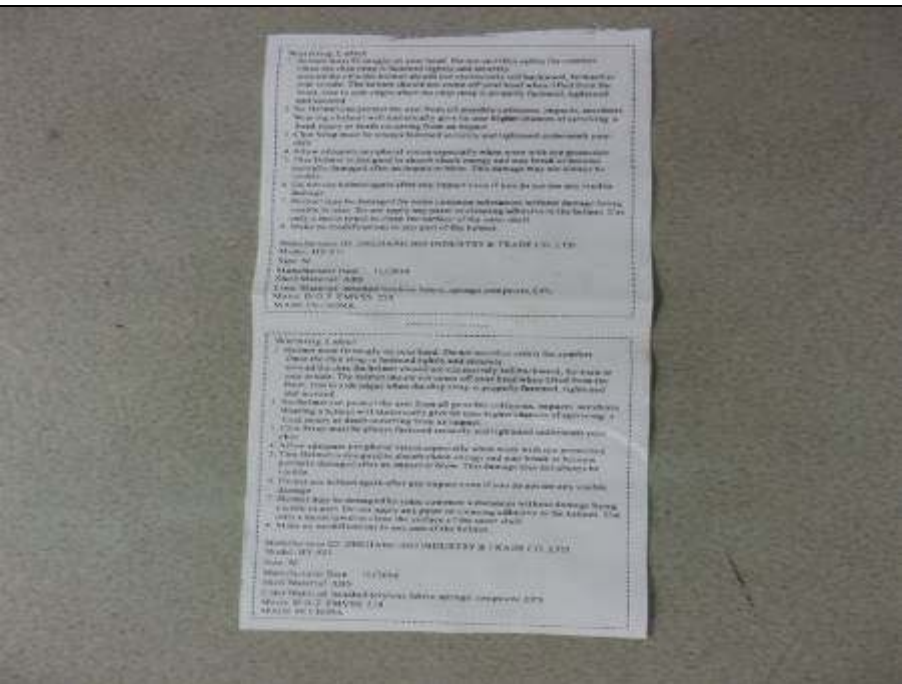


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Label



Label



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<p>Front test line for C DOT</p>	
<p>Side test line for C DOT</p>	



Back test line for C
DOT



End of Report

