

INDUSTRIAL SAFETY HELMETS
Certificate of Test and Inspection



Tanizawa Seisakusho, Ltd.

Standard for Protective Helmets The Ministry of Health, Labour and Welfare in Japan

- A. For flying/falling objects,
- B. For protection at the time of fall.
- C. Withstand Voltage

Name of Products	ST#148-E3Z
Materials	
1. Shell	A.B.S(Acrylonitrile-Butadiene-Styrene)
2. Suspension	PE (Polyethylene)
3. Impact absorption liner	EPS (Expandable polystyrene)
Date of Inspection	Dec. 3, 2014
Indoor Temperature	25°C
Humidity	50%
Test examiner	
Quality control division	Ms. Nobuko Rachi
House laboratory	Mr. Akiyoshi Suzuki

Test Sample	Sample No.	1	2	3	4	5	6
	Spec Value	A. For flying/falling objects.			B. For protection at the time of fall.		
Weight of products	365g±5%	363g	363g	363g	363g	363g	363g
Weight of Shell	245g±5%	243g	243g	243g	243g	243g	243g
Internal vertical distance	H=44± 3mm	44mm	45mm	45mm	44mm	45mm	45mm
Parts Lot No.	Suspension	14·10	14·10	14·10	14·10	14·10	14·10
	Shell	14·08	14·08	14·08	14·08	14·08	14·08

B. For protection at the time of fall.

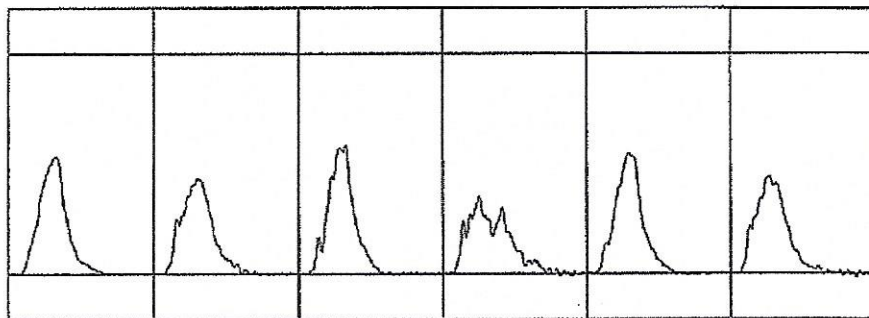
Shock Absorption Test

TANIZAWA SEISAKUSHO,LTD.

Sample No		4	5	6	Result
Conditioning of test samples		High-temperature 50±2°C 2hours	Low-temperature -10±2°C 2hours	immersed in water 25±5°C 4hours	
* Impact region *					
The impact force transmitted to the headform is not more than 9.81kN.	front part	6.18kN(630kgf)	6.33kN(645kgf)	6.55kN(668kgf)	PASS
	back part	5.43kN(554kgf)	5.79kN(581kgf)	5.46kN(557kgf)	PASS
The impact force of 7.35kN or stronger does not continue for 3ms or longer.	front part	0.0msec	0.0msec	0.0msec	PASS
	back part	0.0msec	0.0msec	0.0msec	PASS
The impact force of 4.90kN or stronger does not continue for 4.5ms or longer.	front part	2.7msec	3.2msec	3.0msec	PASS
	back part	2.5msec	2.8msec	2.8msec	PASS

striker mass: 5kg / Falling height: 1m

9.81kN



5ms one division each

Penetration Test

	Spec		4	5	6	Result
※ Penetration	15mm mass	front	10.0	10.0	10.0	PASS
		back	10.5	10.5	10.0	
		right	10.0	10.0	10.5	
		left	10.5	10.0	10.5	

※ Use Virgin shells of same lot. Striker mass: 1.8kg、 falling height : 0.6m

	Spec	4	5	6	Result
C. Withstand	Leakage current: 10mA max(60Hz) or under	6.9mA	6.9mA	6.9mA	PASS
Voltage of shell	Applied voltage of 20kV / 1 min				

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K. Watanabe

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Quality control Manager

A. For flying/falling objects,

Shock Absorption Test

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	1	2	3	Result
Conditioning of test samples	High-temperature 50±2°C 2hours	Low-temperature -10±2°C 2hours	Immersed in water 25±5°C 4hours	PASS
Impact force 4.90kN(500kgf) max or under striker mass: 5kg / falling height: 1m	3.50kN(357kgf)	3.46kN(353kgf)	3.50kN(357kgf)	

5ms one division each

Penetration test

	Spec	1	2	3	Result
※ Penetration	Tip of striker shall not make contact with top of the headform	not contact	not contact	not contact	PASS

※ Use Virgin shells of same lot. Striker mass: 3.0+0.05 -0kg、Falling height : 1000±5mm

Withstand voltage test of shell

	Spec	1	2	3	Result
C. Withstand	Leakage current:10mA max(60Hz) or under	6.9mA	6.9mA	6.9mA	PASS
Voltage of shell	Applied voltage of 20kV/ 1min				

※ Use samples before Shock-absorbing test. Helmets resist 20kV for one minute.

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