



INTERTEK TEST REPORT
3933 US ROUTE 11 CORTLAND, NEW YORK 13045

TEST REPORT NO.: G101071406CRT-001

**ANSI/ISEA Z89.1-2009
“AMERICAN NATIONAL STANDARD FOR
INDUSTRIAL HEAD PROTECTION”**

**TESTING OF
LIBUS MILENIUM
PROTECTIVE HELMET
6 POINT / RATCHET SUSPENSION**

TYPE I

**RENDERED TO:
LIBUS
CALLE 21
1213-BERAZATEGUI
BA
ARGENTINA**

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Abstract

The protective helmet identified as a Libus Milenium, 6 Point / Ratchet Suspension, submitted by the client, was received in pristine condition on 02/11/13 and was evaluated in accordance with the requirements of ANSI/ISEA Z89.1-2009 entitled, "American National Standard for Industrial Head Protection" between 03/07/13 and 03/08/13.

Details of the instrument calibration are maintained in laboratory records.

Introduction

This report describes the results of the test program conducted in accordance with ANSI/ISEA Z89.1-2009 entitled, "American National Standard for Industrial Head Protection," performed on specimens submitted by the client. Intertek Testing Services, located in Cortland NY, conducted the test evaluations.


Product Description

Intertek received 30 yellow production protective helmets with the date code 1/13. The test samples were identified as specimens 1-30.

Authorization

The test was authorized by Quote No. 500434590.

INSTRUCTIONS AND MARKINGS

SECTION	COMPLIANT
6.1 – Each helmet shall be accompanied by manufacturers' instructions explaining the proper method of size adjustment, use, care, useful service life guidelines and, if applicable, reverse wearing.	Yes
6.2 – Each helmet shall bear permanent markings in at least 1.5 mm (0.06 in.) high letters stating the following information:	
6.2 – name or identification mark of the manufacturer;	Yes
6.2 – the date of manufacture;	Yes
6.2 – the American National Standard Designation, ANSI/SEA Z89.1;	Yes
6.2 – the applicable Type and Class Designations, followed by optional criteria markings, if applicable;	Yes
6.2 – the approximate headsize range.	Yes
If optional criteria are applied, the appropriate markings shall follow the sequence as specified below:	APPLICABLE (Yes/No)
 - Reverse donning	No
LT – Lower temperature	No
HV – High visibility	No

PERFORMANCE REQUIREMENTS**FLAMMABILITY**

Method: The protective helmet was tested in accordance with Section 9.1 above the Static Test Line (STL).

Requirements: No flame shall be visible 5 seconds after removal of the test flame.

Results:

SPECIMEN	LOCATION	AFTER FLAME (sec.)	COMPLIANT
12	Back	0.0	Yes

FORCE TRANSMISSION

Method: The protective helmet was tested in accordance with Section 9.2.

Requirements: The protective helmet shall not transmit a force to the test headform that exceeds 4450N (1000 lb.). Additionally, for each test condition specified, the maximum; transmitted force of individual test samples shall be averaged and values shall not exceed 3780N (850 lb).

Results:

VELOCITY RANGE:

5.45 – 5.55 m/s (5.50 ± 0.05 m/s)

HOT CONDITION			COLD CONDITION		
49°C ±2°C (120 °F ± 3.6 °F)			-18°C ±2°C (0°F ±3.6 °F)		
SPECIMEN NO.	VELOCITY (m/s)	FORCE (lbs.)	SPECIMEN NO.	VELOCITY (m/s)	FORCE (lbs.)
1	5.51	705.44	13	5.50	661.38
2	5.49	530.36	14	5.49	730.84
3	5.50	755.96	15	5.50	768.17
4	5.50	739.50	16	5.51	613.26
5	5.49	604.41	17	5.48	693.38
6	5.48	636.83	18	5.51	714.51
7	5.50	639.30	19	5.51	713.20
8	5.51	647.48	20	5.51	666.35
9	5.51	745.20	21	5.51	714.13
10	5.49	543.30	22	5.50	723.22
11	5.50	661.81	23	*5.59	624.87
12	5.51	681.64	24	5.51	713.01
	AVERAGE	657.60		AVERAGE	694.69

*Over Velocity

RESULTS: COMPLIANT

APEX PENETRATION

Method: The protective helmet was tested in accordance with Section 9.3.

Requirements: The penetrator shall not make contact with the top of the test headform.

Results:

VELOCITY RANGE:

6.9 – 7.1 m/s (7.0 ± 0.1 m/s)

HOT CONDITION			COLD CONDITION		
49°C ±2°C (120 °F ± 3.6 °F)			-18°C ±2°C (0°F ±3.6 °F)		
SPECIMEN NO.	VELOCITY (m/s)	COMPLIANT	SPECIMEN NO.	VELOCITY (m/s)	COMPLIANT
25	7.04	Yes	28	7.02	Yes
26	6.97	Yes	29	7.04	Yes
27	6.96	Yes	30	7.04	Yes

ELECTRICAL INSULATION (Class E)

Method: The protective helmet was tested in accordance with Section 9.7.

Requirements: The protective helmet shall withstand 20,000 volts (root mean square), AC, 60 Hertz, for 3 minutes. Leakage shall not exceed 9 milliamperes. At 30,000 volts, the test sample shall not burn through.

Results:

SPECIMEN NO.	LEAKAGE (mA)	BURN THROUGH	COMPLIANT
1	4.03	No	Yes
13	4.17	No	Yes

Conclusion

The protective helmet identified as a Libus Milenium, 6 Point / Ratchet Suspension, **met** the minimum requirements as defined in ANSI/ISEA Z89.1-2009 entitled, "American National Standard for Industrial Head Protection". The helmet type and class defined for this model as a result of the evaluations performed in this report are determined to be **Type I - Class E, G & C.**

Test Performed by:



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Report Reviewed by:



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