# SAFETY COMPLIANCE TESTING FOR FMVSS No. 218 MOTORCYCLE HELMETS

## Brand: BRX
## Model: D30
## Tested Size: L (59-60 cm)

To also include sizes S (55-56 cm) and M (57-58 cm) with same shell and EPS liner size.

Prepared For:

**CHINA YANG ZU S.A.C.**
MZA.X LOTE. 13 PARQUE IND EL ASESOR
(FRENTE HUACAS DE PURUCHUCO)

Part of the Cotecna Group

**Issue Date: 24 November 2025**

**Final Report: 2487.21625.001**

Tested By:

**Taicang ACT Sporting Goods Testing Co., Ltd.**
**No. 35 Zhenghe Road,**
**Ludu Town, Taicang City, Suzhou,**
**Jiangsu Province, China 215412**
**www.act-lab.com**

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Contract File No.: 2487.21625
Test File: 001

Technician: Edward Wang
Test Date: 11 November 2025

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# PURPOSE OF COMPLIANCE TEST

**Purpose:**

**The purpose of this test was to determine if the motorcycle helmets supplied by:**

**CHINA YANG ZU S.A.C.**

**Met the requirements of**

**Federal Motor Vehicle Safety Standard No. 218: Motorcycle Helmets effective May 13, 2013.**

**All samples received were in good condition and appropriate for these tests.**

**Test Procedure:**

**This test was performed following TP-218-07 and ACT TP 304.**

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# HELMET DATA

HELMET BRAND NAME: BRX

HELMET MODEL DESIGNATION: D30

HELMET MANUFACTURER: CHINA YANG ZU S.A.C.

HELMET SIZE: L (59-60 cm)

HELMET COVERAGE: Partial: _____ Full: _____ Complete: X

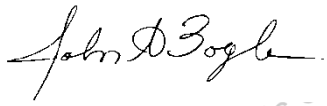
HELMET POSITIONING INDEX: 50 mm

SHELL MATERIAL: Plastic

LINER MATERIAL: Polystyrene

BUCKLE DESCRIPTION: Quick Release Ratchet

| HELMET | A<br>Ambient | B<br>Low Temp | C<br>High Temp | D<br>Water Immersed | E<br>Spare |
|---|---|---|---|---|---|
| SHELL COLOR/PATTERN | Black | Black | Black | Black | Black |
| WEIGHT (grams) | 1534 | 1542 | 1514 | 1517 | 1714 |
| MONTH & YEAR OF MANUFACTURE | 11/25 | 11/25 | 11/25 | 11/25 | 11/25 |

Reviewed by: John Bogler 

COMMENTS:

1. All helmets were received in undamaged condition and were appropriate for testing.
2. Weights listed above for helmets A-D are as tested with face shields and inner sun shields removed.
3. Weight for helmet E is complete with all components in place.
4. ACT determined the HPI information prior to testing.

# SUMMARY OF TEST RESULTS

INDICATE Pass or Fail

| HELMET | A | B | C | D |
|---|---|---|---|---|
| TEST | AMBIENT | LOW TEMP | HIGH TEMP | WATER IMMERSED |
| IMPACT | Pass | Pass | Pass | Pass |
| PENETRATION | Pass | Pass | Pass | Pass |
| RETENTION | Pass | Pass | Pass | Pass |

INDICATE Pass or Fail

| TEST | PASS/FAIL |
|---|---|
| PERIPHERAL VISION | Pass |
| PROJECTIONS | Pass |
| LABELING | *Pass |

COMMENT:

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1 and 5.6.2, ACT has only evaluated that the required content is present.

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## SELECTION OF APPROPRIATE HEADFORM

Paragraph S6.1 - If the helmet size designation falls into more than one of three size ranges, it shall be tested on each appropriate headform.

| HELMET SIZE DESIGNATION | HEADFORM SIZE |
|---|---|
| Less than or equal to 6-3/4 (European Size 54) | SMALL |
| Greater than 6-3/4, but less than or equal to 7-1/2 (European Size 60) | MEDIUM |
| Greater than 7-1/2 (European 60) | LARGE |

COMMENTS:
The manufacturer marked the helmet with its corresponding discrete size: L (59-60 cm), Headform Size: DOT MEDIUM.

CONDITIONING FOR TESTING — Paragraph S6.4 — The protective headgear shall be conditioned for not less than 4 hours and no more than 24 hours, in the specified environmental condition shown below, prior to test.

| | |
|---|---|
| Ambient Conditions | 16°C to 26°C (61ºF to 79ºF); 30% to 70% Relative Humidity |
| Low Temperature | -15°C to -5°C (5ºF to 23ºF) |
| High Temperature | 45°C to 55°C (113ºF to 131ºF) |
| Water Immersion | 16°C to 26°C (61ºF to 79ºF) |

The maximum time during which the protective headgear may be out of the conditioning environment shall not exceed 4 minutes. It must then be returned to the conditioned environment for a minimum of 3 minutes for each minute or portion of a minute in excess of 4 minutes out of the conditioning environment or 12 hours, whichever is less, prior to resumption of testing.

AVERAGE LAB TEMPERATURE : 22 ºC ; AVERAGE LAB HUMIDITY : 57 %

# IMPACT ATTENUATION

| Helmet ID | Condition | Impact # | Impact Location | Anvil | Drop Height (cm) | Velocity (m/sec) | Duration at 150G (ms) | Duration at 200G (ms) | Peak Acc. (g) | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|---|
| 2487.21625.001-A | Ambient | 1 | LF FR | HEMI | 145.0 | 5.29 | 0.0 | 0.0 | 79.0 | Pass |
| 2487.21625.001-A | Ambient | 2 | LF FR | HEMI | 145.0 | 5.26 | 0.0 | 0.0 | 99.0 | Pass |
| 2487.21625.001-A | Ambient | 3 | RT RR | HEMI | 145.0 | 5.31 | 0.0 | 0.0 | 97.0 | Pass |
| 2487.21625.001-A | Ambient | 4 | RT RR | HEMI | 145.0 | 5.26 | 0.0 | 0.0 | 133.0 | Pass |
| 2487.21625.001-A | Ambient | 5 | RT FR | FLAT | 192.0 | 6.00 | 0.3 | 0.0 | 151.0 | Pass |
| 2487.21625.001-A | Ambient | 6 | RT FR | FLAT | 192.0 | 5.99 | 2.2 | 0.0 | 166.0 | Pass |
| 2487.21625.001-A | Ambient | 7 | LF RR | FLAT | 192.0 | 6.01 | 1.3 | 0.0 | 179.0 | Pass |
| 2487.21625.001-A | Ambient | 8 | LF RR | FLAT | 192.0 | 6.03 | 2.8 | 0.0 | 196.0 | Pass |
| 2487.21625.001-B | Cold | 1 | LF FR | HEMI | 145.0 | 5.27 | 0.0 | 0.0 | 79.0 | Pass |
| 2487.21625.001-B | Cold | 2 | LF FR | HEMI | 145.0 | 5.25 | 0.0 | 0.0 | 101.0 | Pass |
| 2487.21625.001-B | Cold | 3 | RT RR | HEMI | 145.0 | 5.28 | 0.0 | 0.0 | 92.0 | Pass |
| 2487.21625.001-B | Cold | 4 | RT RR | HEMI | 145.0 | 5.28 | 0.0 | 0.0 | 140.0 | Pass |
| 2487.21625.001-B | Cold | 5 | RT FR | FLAT | 192.0 | 6.02 | 1.8 | 0.0 | 158.0 | Pass |
| 2487.21625.001-B | Cold | 6 | RT FR | FLAT | 192.0 | 6.01 | 2.6 | 0.0 | 172.0 | Pass |
| 2487.21625.001-B | Cold | 7 | LF RR | FLAT | 192.0 | 6.02 | 1.7 | 0.2 | 203.0 | Pass |
| 2487.21625.001-B | Cold | 8 | LF RR | FLAT | 192.0 | 6.03 | 2.5 | 0.9 | 221.0 | Pass |
| 2487.21625.001-C | Hot | 1 | LF FR | HEMI | 145.0 | 5.25 | 0.0 | 0.0 | 73.0 | Pass |
| 2487.21625.001-C | Hot | 2 | LF FR | HEMI | 145.0 | 5.24 | 0.0 | 0.0 | 105.0 | Pass |
| 2487.21625.001-C | Hot | 3 | RT RR | HEMI | 145.0 | 5.28 | 0.0 | 0.0 | 115.0 | Pass |
| 2487.21625.001-C | Hot | 4 | RT RR | HEMI | 145.0 | 5.28 | 0.9 | 0.0 | 158.0 | Pass |
| 2487.21625.001-C | Hot | 5 | RT FR | FLAT | 192.0 | 6.00 | 0.2 | 0.0 | 150.0 | Pass |
| 2487.21625.001-C | Hot | 6 | RT FR | FLAT | 192.0 | 6.03 | 2.4 | 0.0 | 168.0 | Pass |
| 2487.21625.001-C | Hot | 7 | LF RR | FLAT | 192.0 | 6.04 | 2.1 | 0.0 | 192.0 | Pass |
| 2487.21625.001-C | Hot | 8 | LF RR | FLAT | 192.0 | 6.04 | 2.6 | 0.7 | 212.0 | Pass |
| 2487.21625.001-D | Wet | 1 | LF FR | HEMI | 145.0 | 5.28 | 0.0 | 0.0 | 79.0 | Pass |
| 2487.21625.001-D | Wet | 2 | LF FR | HEMI | 145.0 | 5.27 | 1.0 | 0.5 | 220.0 | Pass |
| 2487.21625.001-D | Wet | 3 | RT RR | HEMI | 145.0 | 5.28 | 0.0 | 0.0 | 92.0 | Pass |
| 2487.21625.001-D | Wet | 4 | RT RR | HEMI | 145.0 | 5.27 | 0.0 | 0.0 | 133.0 | Pass |
| 2487.21625.001-D | Wet | 5 | RT FR | FLAT | 192.0 | 6.04 | 0.8 | 0.0 | 152.0 | Pass |
| 2487.21625.001-D | Wet | 6 | RT FR | FLAT | 192.0 | 6.00 | 1.9 | 0.0 | 165.0 | Pass |
| 2487.21625.001-D | Wet | 7 | LF RR | FLAT | 192.0 | 6.01 | 1.2 | 0.0 | 164.0 | Pass |
| 2487.21625.001-D | Wet | 8 | LF RR | FLAT | 192.0 | 6.03 | 2.8 | 0.0 | 180.0 | Pass |

Contract File No.: 2487.21625
Test File: 001

Technician: Edward Wang
Test Date: 11 November 2025

## PENETRATION

Paragraph S5.2 and S7.2

WEIGHT OF STRIKER: 2.95 to 3.06 kg (6 pounds, 8 ounces to 6 pounds, 12 ounces)

POINT OF STRIKER: Radius = 0.5 ± 0.1 mm (0.02 ± 0.004 in.), included angle of 60º ± 0.5°, hardness minimum of 60 Rockwell "C" Scale and a cone height of not less than 3.8 ± 0.038 cm (1.5 ± 0.015 in.).

HEIGHT OF FALL: 300 cm ± 1.5 cm, measured from the tip of the striker point to the outer surface of the mounted protective headgear.

FAILURE CRITERION: When tested, the protective headgear shall be failed if the penetrator has made an indentation in the headform.

| TEST | HELMET | TEST LOCATION | PASS | FAIL | CONDITIONS |
|---|---|---|---|---|---|
| 1 | A | Crown | X | | AMBIENT |
| 2 | A | Rear | X | | AMBIENT |
| 3 | B | Crown | X | | LOW TEMPERATURE |
| 4 | B | Rear | X | | LOW TEMPERATURE |
| 5 | C | Crown | X | | HIGH TEMPERATURE |
| 6 | C | Rear | X | | HIGH TEMPERATURE |
| 7 | D | Crown | X | | WATER IMMERSED |
| 8 | D | Rear | X | | WATER IMMERSED |

COMMENT: Photographs of penetration test locations are found in Appendix C.

## RETENTION SYSTEM

Paragraph S5.3 and S7.3

REQUIREMENTS:

| READING | APPLIED LOAD |
|---|---|
| INITIAL | 22.68 kg, + 4.54 kg, - 0 kg (50.0 lbs., + 10 lbs., - 0 lbs.) |
| FINAL | 136 kg, + 0 kg, - 2.3 kg (300.0 lbs., + 0 lbs., - 5 lbs.) |

ELONGATION NOT TO EXCEED 2.54 cm (1.0 INCH) AFTER LOAD INCREASE

| HELMET | CONDITIONS | ELONGATION cm |
|---|---|---|
| A | AMBIENT | 1.72 |
| B | LOW TEMPERATURE | 1.69 |
| C | HIGH TEMPERATURE | 1.84 |
| D | WATER IMMERSED | 2.05 |

## PERIPHERAL VISION

CONFIGURATION - Paragraph S5.4 - Helmet shall provide a minimum peripheral vision of 105º to each side of the midsagittal plane. The brow opening shall be at least 2.54 cm (1 inch) above all points in the basic plane that are within the angles of peripheral vision.

| | REQUIREMENTS | TEST RESULTS |
|---|---|---|
| PERIPHERAL VISION | > 105º | Pass |
| BROW OPENING | > 2.5 cm (1 inch) | Pass |

# PROJECTIONS

Paragraph S5.5

REQUIREMENTS:

| PROJECTION | REQUIREMENT |
|---|---|
| Internal rigid | None |
| External rigid | Operational, shall not protrude more than 5 mm |

TEST RESULTS:

| PROJECTION | PRESENT | HEIGHT (mm) |
|---|---|---|
| Internal | None | Not Applicable |
| External | Rear Spoiler | 47.85 mm |

COMMENT:

1. The projection is greater than 5 mm in height but is loosely attached to the shell as it breaks away when impacted with the forces equivalent to those produced by the impact attenuation test and therefore deemed non-rigid.

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## LABELING

S5.6.1 *Labeling* - Each helmet shall be permanently and legibly labeled, in a manner such that the label(s) can be easily read without removing padding or any other permanent part, with the following:

| Required Information | Content/Format | Permanent |
|---|---|---|
| Manufacturer's name | Pass | *Pass |
| Discrete size | Pass | *Pass |
| Month and year of manufacture | Pass | *Pass |
| Instructions to the purchaser as follows: | -------- | -------- |
| "Shell and liner constructed of (identify type(s) of materials)." | Pass | Pass |
| "Helmet can be seriously damaged by some common substances without damage being visible to the user." | Pass | Pass |
| "Apply only the following: (Recommended cleaning agents, paints, adhesives, etc., as appropriate." | Pass | Pass |
| "Make no modifications." | Pass | Pass |
| "Fasten helmet securely." | Pass | Pass |
| "If helmet experiences a severe blow, return it to the manufacturer for inspection, or destroy it and replace it." | Pass | Pass |

COMMENT:

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1. ACT has only evaluated that the required content is present; the additional requirements for: formatting, appearance, and permanency were not evaluated.

## LABELING

S5.6.2 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. (a) Content, format, and appearance. The label required by paragraph S5.6.2 shall have the following content, format, and appearance:

| Required Certification Information | Content/ Format | Permanent |
|---|---|---|
| The symbol ''DOT,'' horizontally centered on the label, in letters not less than 0.38 inch (1.0 cm) high. | *Pass | *Pass |
| The term ''FMVSS No. 218,'' horizontally centered beneath the symbol DOT, in letters not less than 0.09 inches (0.23 cm) high. | *Pass | |
| The word "'CERTIFIED,'' horizontally centered beneath the term ''FMVSS No. 218,'' in letters not less than 0.09 inches (0.23 cm) high. | *Pass | |
| 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 | |
| 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 | |
| All symbols, letters and numerals shall be in a color that contrasts with the background of the label. | *Pass | |
| No information, other than the information specified in subparagraph (a), shall appear on the label. | *Pass | |
| 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 | |

COMMENT:

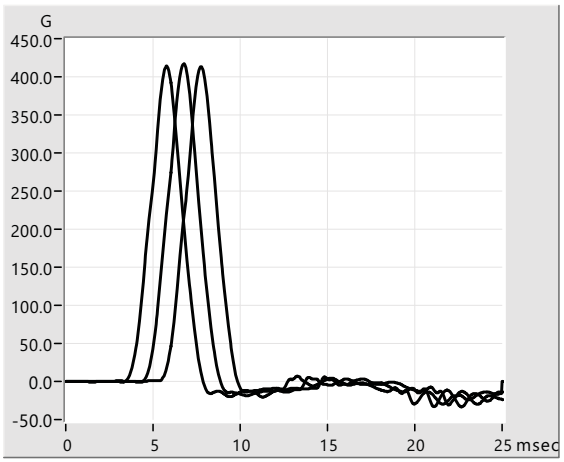
1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.2. ACT has only evaluated that the required content is present; the additional requirements for: formatting, appearance, and permanency were not evaluated.

# TEST DATA

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## Uni-Axial System-Check

Helmet Manufacturer :
Address :




Testing Laboratory : Taicang ACT Sporting Goods
Address : No. 35 Zhenghe Road Ludu Town, Taicang City Suzhou, Jiangsu, 215412, China

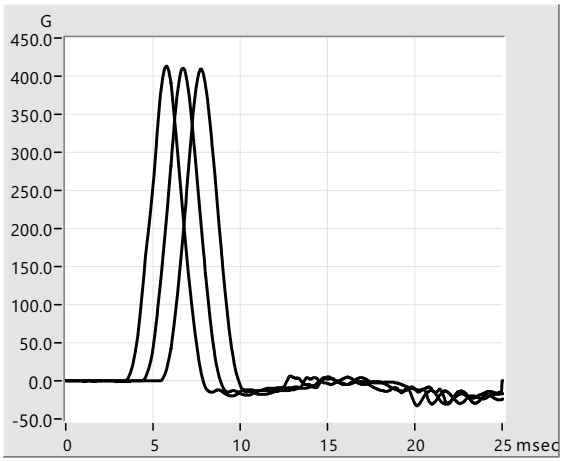
Laboratory Technician name : Edward
M.E.P. Pad Model : Mini-MEP
Laboratory Temperature : 22 deg C
Laboratory Humidity : 57 %
Selected Filter Frequency : CFC1000 # 1650 Hz
Acc. sensitivity (axis Z) : 9.91 mV/G
Acc. sensitivity (axis X) : 10.23 mV/G
Acc. sensitivity (axis Y) : 10.53 mV/G
**Drop Device : D.O.T Size C (Uni-Axial)** 24
Drop mass assembly : 4.979 kg Time gate flag height : 25.45 mm
Calibration peak : 402.5 G +/- 22.50 G

| Impact # | Position | Anvil type | Drop Height (cm) | Energy (Joules) | Friction (%) | Time Gate (msec) | Velocity IN (m/sec) | Peak Acc.(G) | Delta T 150G (msec) | Delta T 200G (msec) | HIC | SI | PASS or FAIL | Test Time | Test Date | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FRONT | FLAT | 110.0 | 52 | 1.40 | 5.56 | 4.58 | 410.0 | 2.4 | 2.1 | 4080 | 4558 | Pass | 08:36:17 | 2025-11-11 | |
| 2 | FRONT | FLAT | 110.0 | 51 | 2.69 | 5.63 | 4.52 | 412.0 | 2.5 | 2.0 | 3990 | 4491 | Pass | 08:37:05 | 2025-11-11 | |
| 3 | FRONT | FLAT | 110.0 | 50 | 3.55 | 5.68 | 4.48 | 411.0 | 2.4 | 2.1 | 4070 | 4539 | Pass | 08:37:53 | 2025-11-11 | |
| 4 | FRONT | FLAT | 110.0 | 50 | 3.12 | 5.65 | 4.50 | 414.0 | 2.5 | 2.1 | 3969 | 4478 | Pass | 08:38:41 | 2025-11-11 | |
| 5 | FRONT | FLAT | 110.0 | 51 | 2.90 | 5.64 | 4.51 | 417.0 | 2.5 | 2.1 | 4057 | 4572 | Pass | 08:39:33 | 2025-11-11 | |
| 6 | FRONT | FLAT | 110.0 | 51 | 2.90 | 5.64 | 4.51 | 413.0 | 2.5 | 2.1 | 3991 | 4494 | Pass | 08:40:21 | 2025-11-11 | |
| Last 3# | 0.00 | 0.00 | 110.00 | 50.67 | 2.97 | 5.64 | 4.51 | 414.67 | 2.50 | 2.10 | 4005.67 | 4514.67 | 0.00 | 8.00 | 2025.00 | 0.00 |

Curve impact #2 : shift of 1msec ; Curve impact #3 : shift of 2msec

## Uni-Axial System-Check

Helmet Manufacturer :
Address :




Testing Laboratory : Taicang ACT Sporting Goods
Address : No. 35 Zhenghe Road Ludu Town, Taicang City Suzhou, Jiangsu, 215412, China

Laboratory Technician name : Edward
M.E.P. Pad Model : Mini-MEP
Laboratory Temperature : 22 deg C
Laboratory Humidity : 57 %
Selected Filter Frequency : CFC1000 # 1650 Hz
Acc. sensitivity (axis Z) : 9.91 mV/G
Acc. sensitivity (axis X) : 10.23 mV/G
Acc. sensitivity (axis Y) : 10.53 mV/G
**Drop Device : D.O.T Size C (Uni-Axial)** 24
Drop mass assembly : 4.979 kg Time gate flag height : 25.45 mm
Calibration peak : 402.5 G +/- 22.50 G

| Impact # | Position | Anvil type | Drop Height (cm) | Energy (Joules) | Friction (%) | Time Gate (msec) | Velocity IN (m/sec) | Peak Acc.(G) | Delta T 150G (msec) | Delta T 200G (msec) | HIC | SI | PASS or FAIL | Test Time | Test Date | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FRONT | FLAT | 110.0 | 50 | 3.55 | 5.68 | 4.48 | 407.0 | 2.4 | 2.0 | 4011 | 4471 | Pass | 11:56:50 | 2025-11-11 | |
| 2 | FRONT | FLAT | 110.0 | 49 | 4.19 | 5.73 | 4.45 | 410.0 | 2.5 | 2.1 | 3918 | 4411 | Pass | 11:57:42 | 2025-11-11 | |
| 3 | FRONT | FLAT | 110.0 | 50 | 3.55 | 5.68 | 4.48 | 413.0 | 2.5 | 2.0 | 3997 | 4508 | Pass | 11:58:34 | 2025-11-11 | |
| 4 | FRONT | FLAT | 110.0 | 49 | 4.41 | 5.73 | 4.44 | 413.0 | 2.5 | 2.0 | 3942 | 4460 | Pass | 11:59:27 | 2025-11-11 | |
| 5 | FRONT | FLAT | 110.0 | 50 | 3.12 | 5.66 | 4.50 | 410.0 | 2.4 | 2.0 | 4032 | 4512 | Pass | 12:00:16 | 2025-11-11 | |
| 6 | FRONT | FLAT | 110.0 | 51 | 2.47 | 5.62 | 4.53 | 409.0 | 2.4 | 2.0 | 4035 | 4501 | Pass | 12:01:04 | 2025-11-11 | |
| Last 3# | 0.00 | 0.00 | 110.00 | 50.00 | 3.33 | 5.67 | 4.49 | 410.67 | 2.43 | 2.00 | 4003.00 | 4491.00 | 0.00 | 11.67 | 2025.00 | 0.00 |



Curve impact #2 : shift of 1msec ; Curve impact #3 : shift of 2msec

# Testing Report

CADEX THE SPECIALIST

| | |
|---|---|
| Laboratory Technician name : | Edward |
| Helmet Manufacturer : | |

**Environmental Conditions**

| | |
|---|---|
| Laboratory Temperature [°C] : | 22 |
| Laboratory Humidity [%] : | 57 |

**SAMPLE IDENTIFICATION**

| | |
|---|---|
| Model : | D30 |
| Color : | Black |
| Size : | L(59-60CM) |
| Weight [g] : | 1534.00 |
| Manufacturing Date : | 06 Nov 2025 |

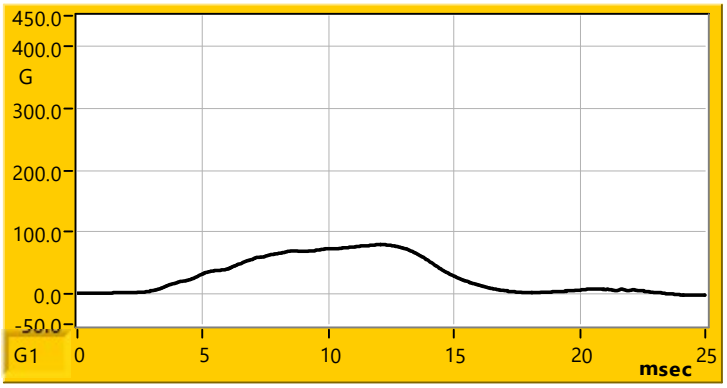
| | |
|---|---|
| Standard Request : | FMVSS No.218 |
| Identification Code : | 2487.21625.001-A |
| Headform Model : | D.O.T. |
| Headform Size : | C D.O.T |
| Conditioning : | Ambiant |
| Drop mass assembly : | 4.979 kg |

Batch Number

Ref. P.O. Number

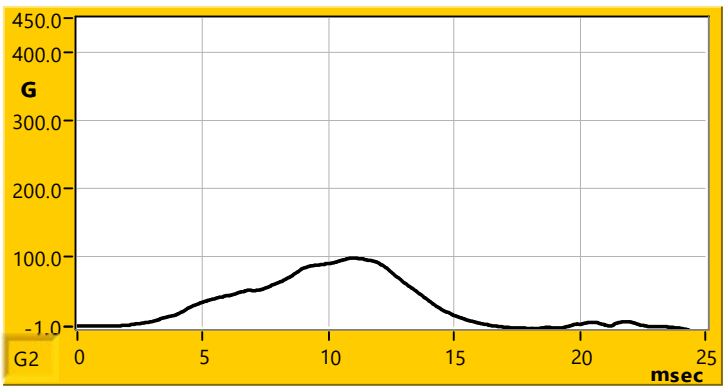
| Impact # | Position | Anvil type | Drop Height (cm) | Energy (Joules) | Friction (%) | Time Gate (msec) | Velocity IN (m/sec) | Peak Acc.(G) | Delta T 150G (msec) | Delta T 200G (msec) | HIC | SI | PASS or FAIL | Test Time | Test Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LF FR | HEMI | 145.0 | 70 | 0.80 | 4.81 | 5.29 | 79.0 | 0.0 | 0.0 | 301 | 330 | Pass | 10:54:20 | 2025-11-11 |
| 2 | LF FR | HEMI | 145.0 | 69 | 1.37 | 4.84 | 5.26 | 99.0 | 0.0 | 0.0 | 372 | 432 | Pass | 10:54:26 | 2025-11-11 |
| 3 | RT RR | HEMI | 145.0 | 70 | 0.43 | 4.80 | 5.31 | 97.0 | 0.0 | 0.0 | 364 | 408 | Pass | 11:00:00 | 2025-11-11 |
| 4 | RT RR | HEMI | 145.0 | 69 | 1.37 | 4.84 | 5.26 | 133.0 | 0.0 | 0.0 | 554 | 636 | Pass | 11:00:07 | 2025-11-11 |
| 5 | RT FR | FLAT | 192.0 | 90 | 2.23 | 4.24 | 6.00 | 151.0 | 0.3 | 0.0 | 908 | 1036 | Pass | 11:10:10 | 2025-11-11 |

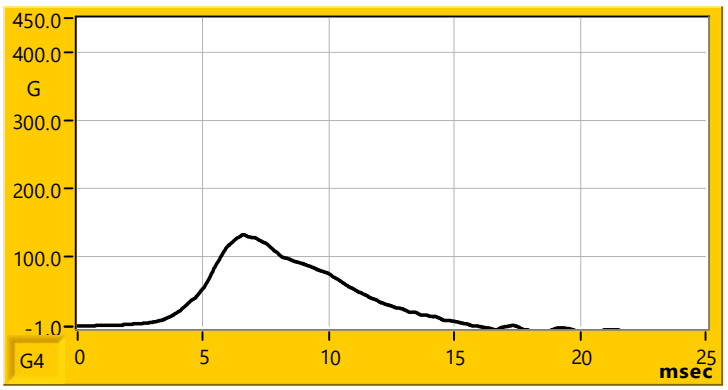
**IMPACT TEST RESULTS**

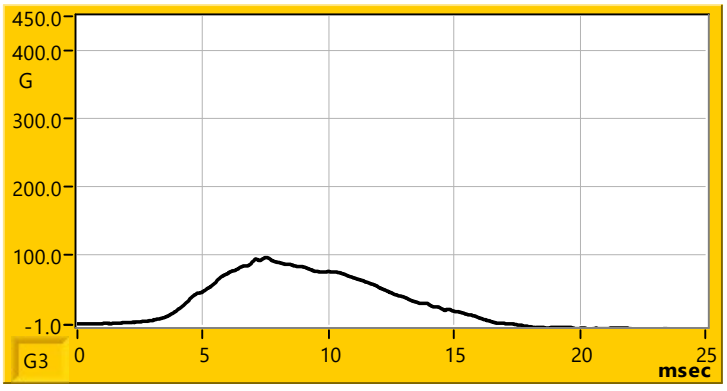


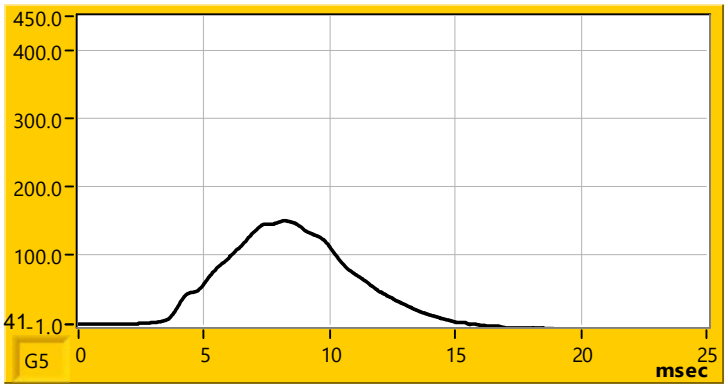

**PASS / FAIL CRITERIA**

| | |
|---|---|
| Maximum Peak G's authorized : | 400 |
| Maximum Peak m/s2 authorized : | 3923 |



# Testing Report

CADEX THE SPECIALIST

| | |
|---|---|
| Laboratory Technician name : | Edward |
| Helmet Manufacturer : | |

**Environmental Conditions**

| | |
|---|---|
| Laboratory Temperature [°C] : | 22 |
| Laboratory Humidity [%] : | 57 |

**SAMPLE IDENTIFICATION**

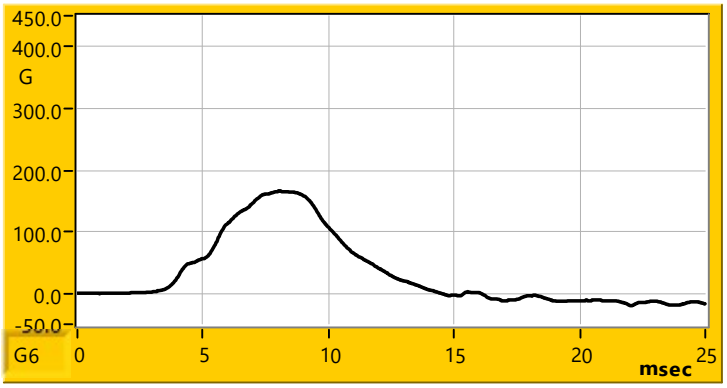
| | | | |
|---|---|---|---|
| Model : | D30 | Standard Request : | FMVSS No.218 |
| Color : | Black | Identification Code : | 2487.21625.001-A |
| Size : | L(59-60CM) | Headform Model : | D.O.T. |
| Weight [g] : | 1534.00 | Headform Size : | C D.O.T |
| Manufacturing Date : | 06 Nov 2025 | Conditioning : | Ambiant |
| | | Drop mass assembly : | 4.979 kg |

Batch Number

Ref. P.O. Number

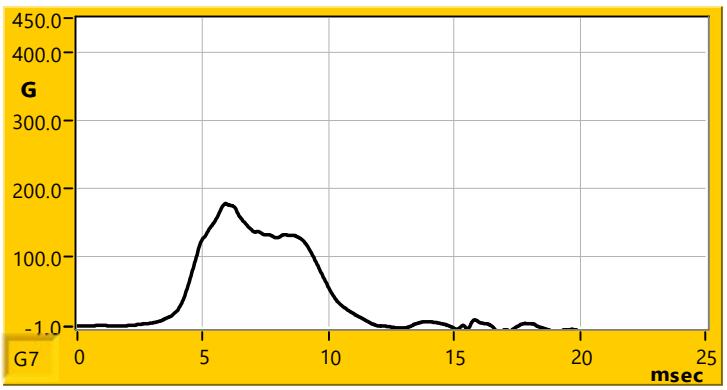
| Impact # | Position | Anvil type | Drop Height (cm) | Energy (Joules) | Friction (%) | Time Gate (msec) | Velocity IN (m/sec) | Peak Acc.(G) | Delta T 150G (msec) | Delta T 200G (msec) | HIC | SI | PASS or FAIL | Test Time | Test Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | RT FR | FLAT | 192.0 | 89 | 2.39 | 4.25 | 5.99 | 166.0 | 2.2 | 0.0 | 1113 | 1255 | Pass | 11:10:23 | 2025-11-11 |
| 7 | LF RR | FLAT | 192.0 | 90 | 2.06 | 4.24 | 6.01 | 179.0 | 1.3 | 0.0 | 1115 | 1195 | Pass | 11:20:51 | 2025-11-11 |
| 8 | LF RR | FLAT | 192.0 | 91 | 1.74 | 4.22 | 6.03 | 196.0 | 2.8 | 0.0 | 1313 | 1423 | Pass | 11:21:00 | 2025-11-11 |
| | | | | | | | | | | | | | | | |
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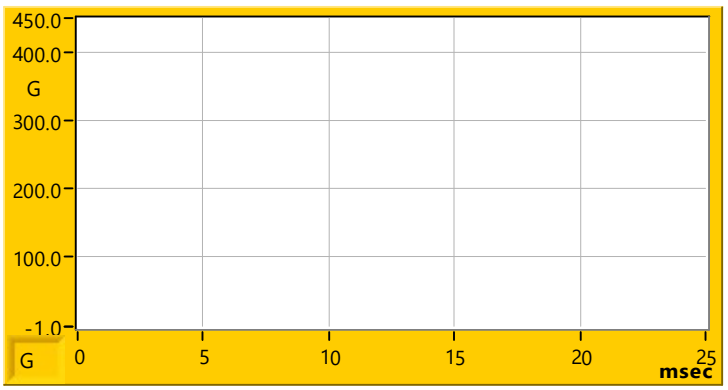
**IMPACT TEST RESULTS**

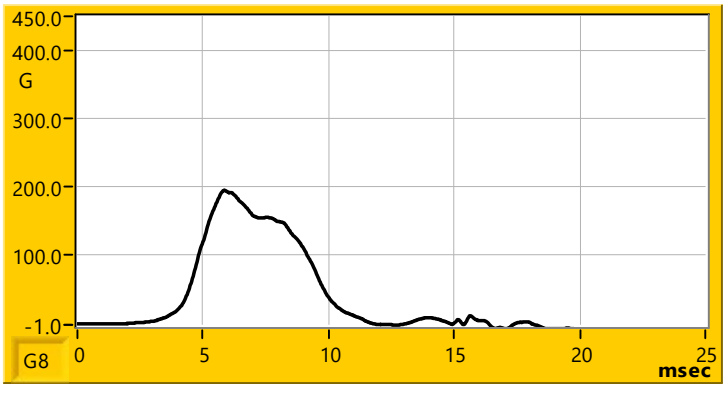


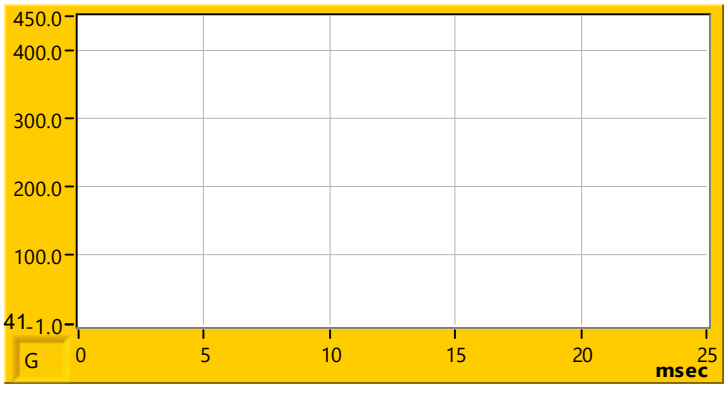

**PASS / FAIL CRITERIA**

| | |
|---|---|
| Maximum Peak G's authorized : | 400 |
| Maximum Peak m/s2 authorized : | 3923 |



# Testing Report

CADEX THE SPECIALIST

| | |
|---|---|
| Laboratory Technician name : | Edward |
| Helmet Manufacturer : | |

**Environmental Conditions**

| | |
|---|---|
| Laboratory Temperature [°C] : | 22 |
| Laboratory Humidity [%] : | 57 |

**SAMPLE IDENTIFICATION**

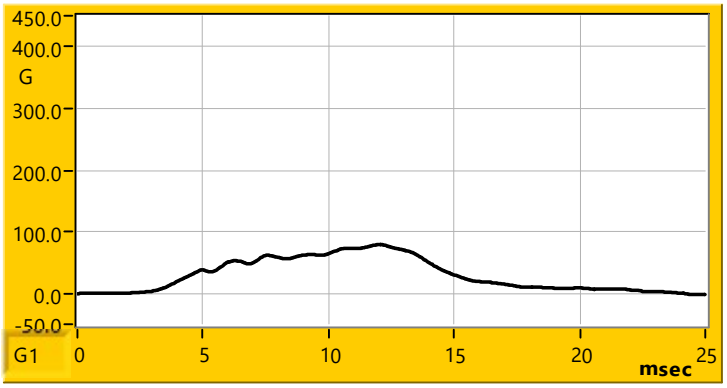
| | | | |
|---|---|---|---|
| Model : | D30 | Standard Request : | FMVSS No.218 |
| Color : | Black | Identification Code : | 2487.21625.001-B |
| Size : | L(59-60CM) | Headform Model : | D.O.T. |
| Weight [g] : | 1542.00 | Headform Size : | C D.O.T |
| Manufacturing Date : | 06 Nov 2025 | Conditioning : | Cold |
| | | Drop mass assembly : | 4.979 kg |

Batch Number

Ref. P.O. Number

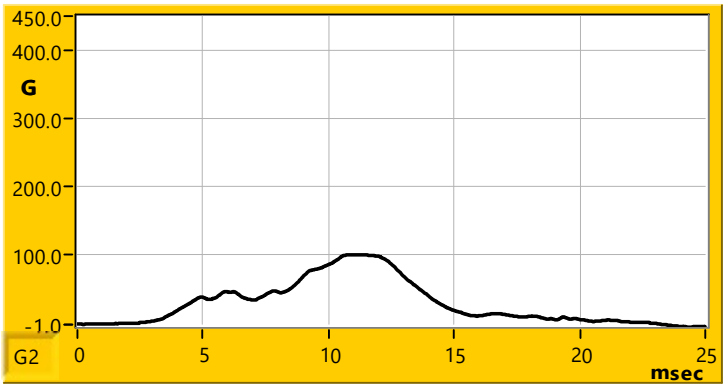
| Impact # | Position | Anvil type | Drop Height (cm) | Energy (Joules) | Friction (%) | Time Gate (msec) | Velocity IN (m/sec) | Peak Acc.(G) | Delta T 150G (msec) | Delta T 200G (msec) | HIC | SI | PASS or FAIL | Test Time | Test Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LF FR | HEMI | 145.0 | 69 | 1.18 | 4.83 | 5.27 | 79.0 | 0.0 | 0.0 | 271 | 301 | Pass | 10:51:57 | 2025-11-11 |
| 2 | LF FR | HEMI | 145.0 | 69 | 1.55 | 4.85 | 5.25 | 101.0 | 0.0 | 0.0 | 333 | 409 | Pass | 10:52:04 | 2025-11-11 |
| 3 | RT RR | HEMI | 145.0 | 69 | 0.99 | 4.82 | 5.28 | 92.0 | 0.0 | 0.0 | 317 | 354 | Pass | 10:58:03 | 2025-11-11 |
| 4 | RT RR | HEMI | 145.0 | 70 | 0.99 | 4.82 | 5.28 | 140.0 | 0.0 | 0.0 | 629 | 715 | Pass | 10:58:18 | 2025-11-11 |
| 5 | RT FR | FLAT | 192.0 | 90 | 1.90 | 4.22 | 6.02 | 158.0 | 1.8 | 0.0 | 1007 | 1143 | Pass | 11:05:44 | 2025-11-11 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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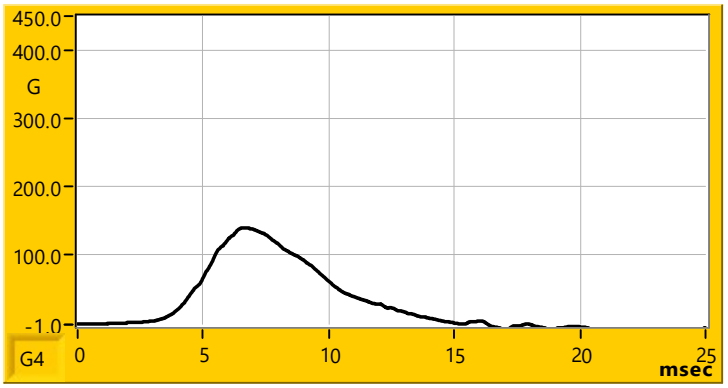
**IMPACT TEST RESULTS**

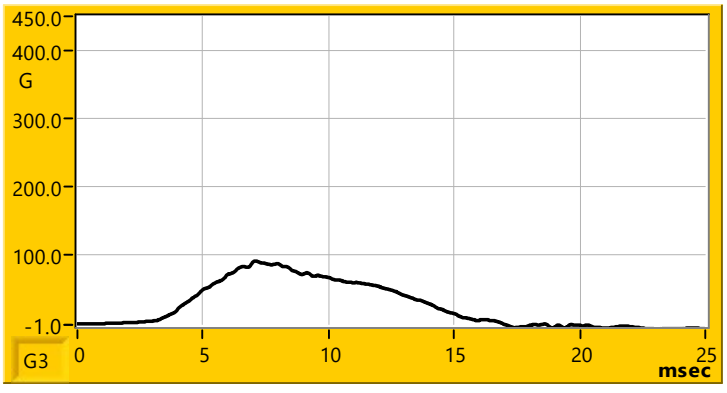


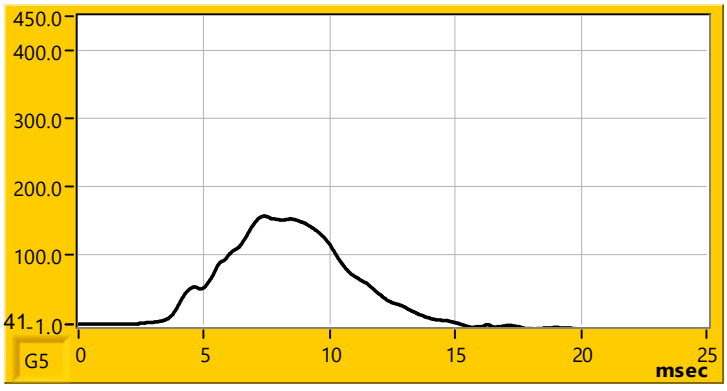

**PASS / FAIL CRITERIA**

| | |
|---|---|
| Maximum Peak G's authorized : | 400 |
| Maximum Peak m/s2 authorized : | 3923 |



# Testing Report

CADEX THE SPECIALIST

| | |
|---|---|
| Laboratory Technician name : | Edward |
| Helmet Manufacturer : | |

**Environmental Conditions**

| | |
|---|---|
| Laboratory Temperature [°C] : | 22 |
| Laboratory Humidity [%] : | 57 |

**SAMPLE IDENTIFICATION**

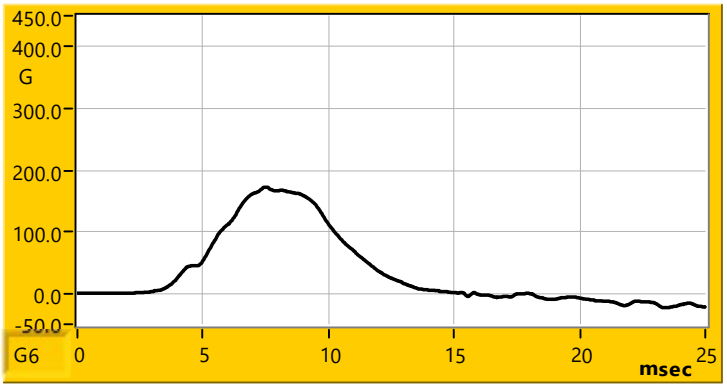
| | | | |
|---|---|---|---|
| Model : | D30 | Standard Request : | FMVSS No.218 |
| Color : | Black | Identification Code : | 2487.21625.001-B |
| Size : | L(59-60CM) | Headform Model : | D.O.T. |
| Weight [g] : | 1542.00 | Headform Size : | C D.O.T |
| Manufacturing Date : | 06 Nov 2025 | Conditioning : | Cold |
| | | Drop mass assembly : | 4.979 kg |

Batch Number

Ref. P.O. Number

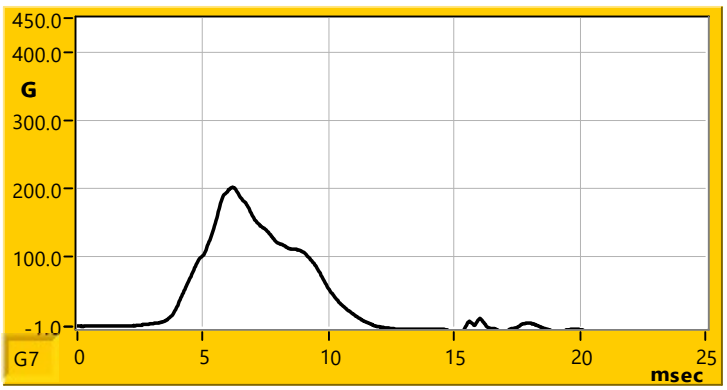
| Impact # | Position | Anvil type | Drop Height (cm) | Energy (Joules) | Friction (%) | Time Gate (msec) | Velocity IN (m/sec) | Peak Acc.(G) | Delta T 150G (msec) | Delta T 200G (msec) | HIC | SI | PASS or FAIL | Test Time | Test Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | RT FR | FLAT | 192.0 | 90 | 2.06 | 4.24 | 6.01 | 172.0 | 2.6 | 0.0 | 1215 | 1361 | Pass | 11:05:57 | 2025-11-11 |
| 7 | LF RR | FLAT | 192.0 | 90 | 1.90 | 4.23 | 6.02 | 203.0 | 1.7 | 0.2 | 1116 | 1286 | Pass | 11:14:15 | 2025-11-11 |
| 8 | LF RR | FLAT | 192.0 | 90 | 1.74 | 4.22 | 6.03 | 221.0 | 2.5 | 0.9 | 1462 | 1625 | Pass | 11:14:29 | 2025-11-11 |
| | | | | | | | | | | | | | | | |
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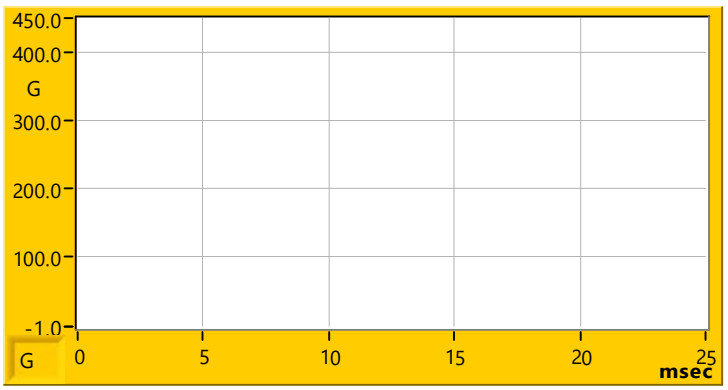
**IMPACT TEST RESULTS**

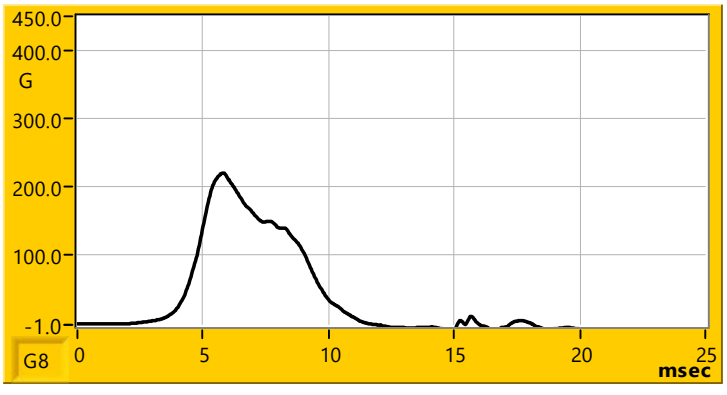


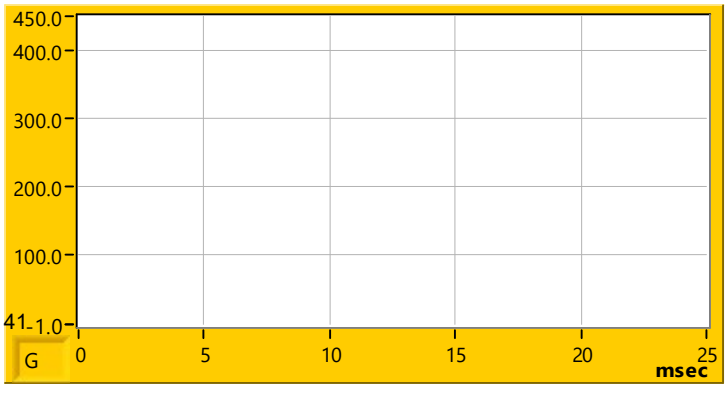

**PASS / FAIL CRITERIA**

| | |
|---|---|
| Maximum Peak G's authorized : | 400 |
| Maximum Peak m/s2 authorized : | 3923 |



# Testing Report

CADEX THE SPECIALIST

| | |
|---|---|
| Laboratory Technician name : | Edward |
| Helmet Manufacturer : | |

**Environmental Conditions**

| | |
|---|---|
| Laboratory Temperature [°C] : | 22 |
| Laboratory Humidity [%] : | 57 |

**SAMPLE IDENTIFICATION**

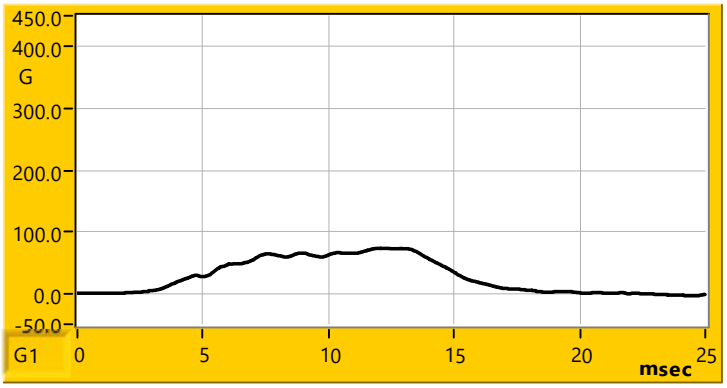
| | | | |
|---|---|---|---|
| Model : | D30 | Standard Request : | FMVSS No.218 |
| Color : | Black | Identification Code : | 2487.21625.001-C |
| Size : | L(59-60CM) | Headform Model : | D.O.T. |
| Weight [g] : | 1514.00 | Headform Size : | C D.O.T |
| Manufacturing Date : | 06 Nov 2025 | Conditioning : | Hot |
| | | Drop mass assembly : | 4.979 kg |

Batch Number

Ref. P.O. Number

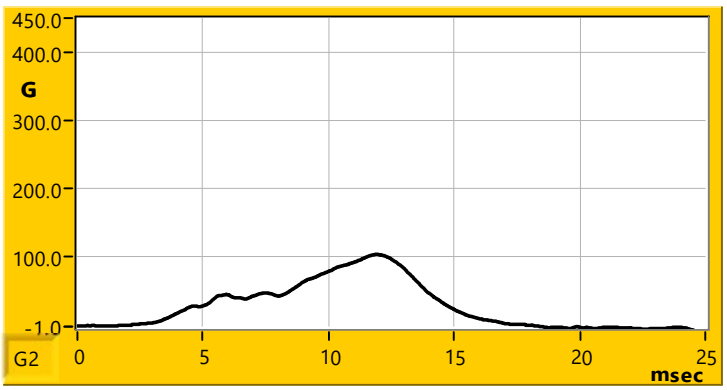
| Impact # | Position | Anvil type | Drop Height (cm) | Energy (Joules) | Friction (%) | Time Gate (msec) | Velocity IN (m/sec) | Peak Acc.(G) | Delta T 150G (msec) | Delta T 200G (msec) | HIC | SI | PASS or FAIL | Test Time | Test Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LF FR | HEMI | 145.0 | 69 | 1.55 | 4.84 | 5.25 | 73.0 | 0.0 | 0.0 | 270 | 290 | Pass | 10:52:50 | 2025-11-11 |
| 2 | LF FR | HEMI | 145.0 | 68 | 1.74 | 4.85 | 5.24 | 105.0 | 0.0 | 0.0 | 336 | 413 | Pass | 10:52:58 | 2025-11-11 |
| 3 | RT RR | HEMI | 145.0 | 70 | 0.99 | 4.82 | 5.28 | 115.0 | 0.0 | 0.0 | 446 | 512 | Pass | 10:59:20 | 2025-11-11 |
| 4 | RT RR | HEMI | 145.0 | 69 | 0.99 | 4.82 | 5.28 | 158.0 | 0.9 | 0.0 | 694 | 825 | Pass | 10:59:27 | 2025-11-11 |
| 5 | RT FR | FLAT | 192.0 | 90 | 2.23 | 4.24 | 6.00 | 150.0 | 0.2 | 0.0 | 924 | 1043 | Pass | 11:07:57 | 2025-11-11 |
| | | | | | | | | | | | | | | | |
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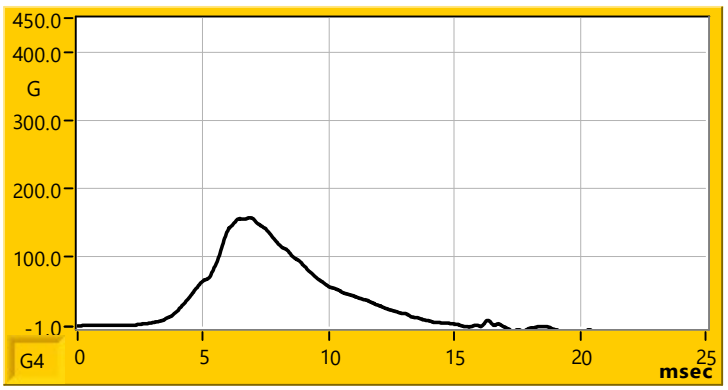
**IMPACT TEST RESULTS**

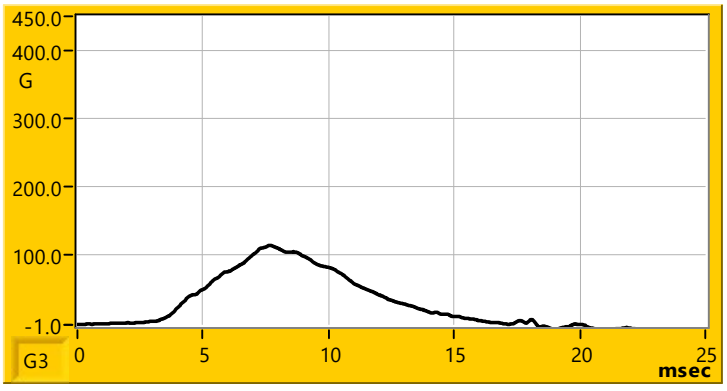


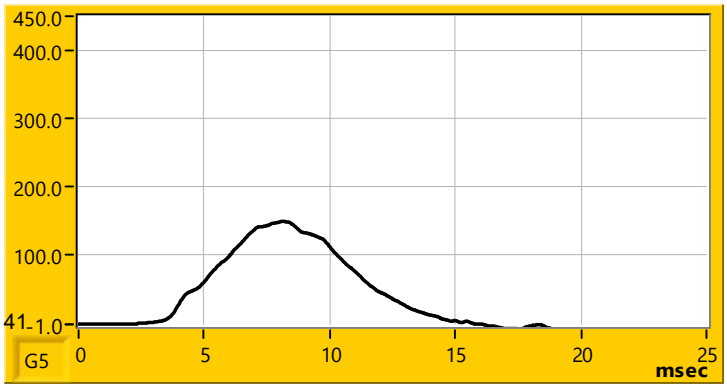

**PASS / FAIL CRITERIA**

| | |
|---|---|
| Maximum Peak G's authorized : | 400 |
| Maximum Peak m/s2 authorized : | 3923 |



# Testing Report

CADEX THE SPECIALIST

| | |
|---|---|
| Laboratory Technician name : | Edward |
| Helmet Manufacturer : | |

**Environmental Conditions**

| | |
|---|---|
| Laboratory Temperature [°C] : | 22 |
| Laboratory Humidity [%] : | 57 |

**SAMPLE IDENTIFICATION**

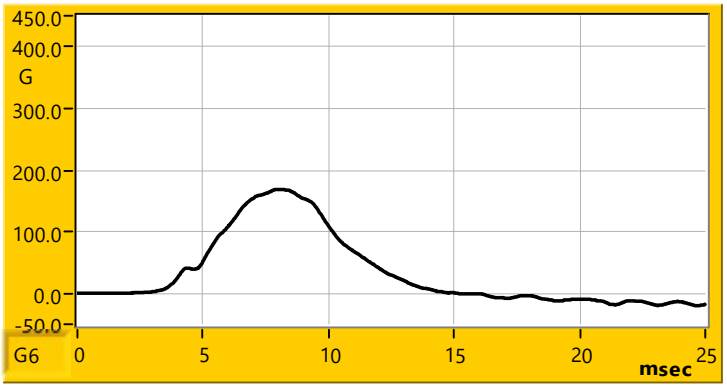
| | | | |
|---|---|---|---|
| Model : | D30 | Standard Request : | FMVSS No.218 |
| Color : | Black | Identification Code : | 2487.21625.001-C |
| Size : | L(59-60CM) | Headform Model : | D.O.T. |
| Weight [g] : | 1514.00 | Headform Size : | C D.O.T |
| Manufacturing Date : | 06 Nov 2025 | Conditioning : | Hot |
| | | Drop mass assembly : | 4.979 kg |

Batch Number

Ref. P.O. Number

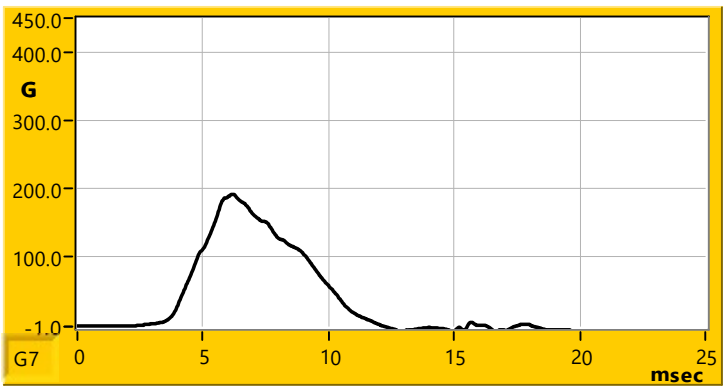
| Impact # | Position | Anvil type | Drop Height (cm) | Energy (Joules) | Friction (%) | Time Gate (msec) | Velocity IN (m/sec) | Peak Acc.(G) | Delta T 150G (msec) | Delta T 200G (msec) | HIC | SI | PASS or FAIL | Test Time | Test Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | RT FR | FLAT | 192.0 | 90 | 1.74 | 4.22 | 6.03 | 168.0 | 2.4 | 0.0 | 1138 | 1286 | Pass | 11:08:11 | 2025-11-11 |
| 7 | LF RR | FLAT | 192.0 | 91 | 1.57 | 4.22 | 6.04 | 192.0 | 2.1 | 0.0 | 1159 | 1309 | Pass | 11:19:22 | 2025-11-11 |
| 8 | LF RR | FLAT | 192.0 | 91 | 1.57 | 4.21 | 6.04 | 212.0 | 2.6 | 0.7 | 1422 | 1573 | Pass | 11:19:33 | 2025-11-11 |
| | | | | | | | | | | | | | | | |
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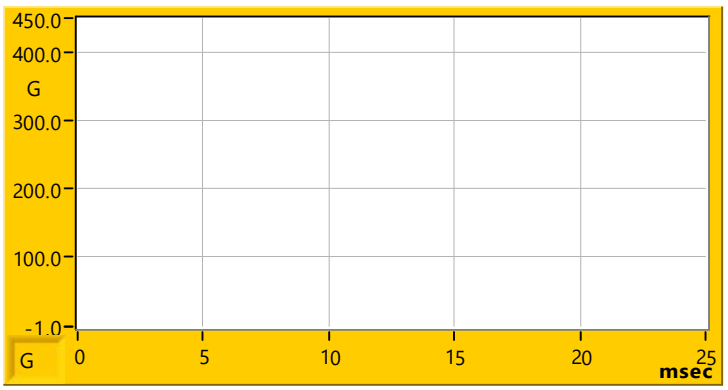
**IMPACT TEST RESULTS**

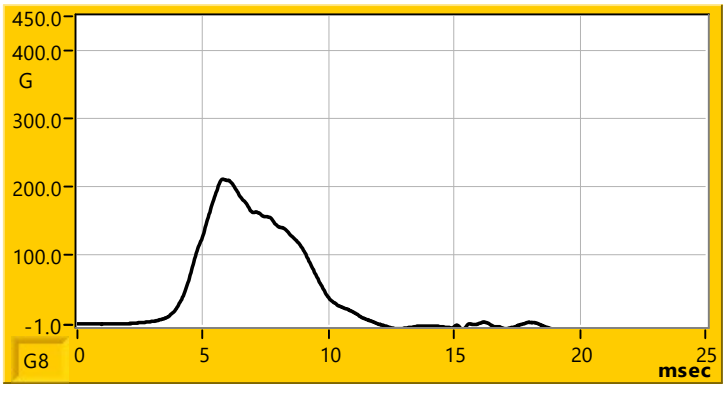


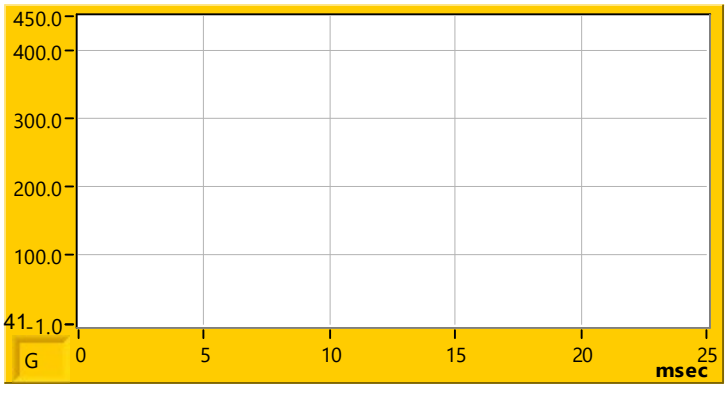

**PASS / FAIL CRITERIA**

| | |
|---|---|
| Maximum Peak G's authorized : | 400 |
| Maximum Peak m/s2 authorized : | 3923 |



# Testing Report

CADEX THE SPECIALIST

| | |
|---|---|
| Laboratory Technician name : | Edward |
| Helmet Manufacturer : | |

**Environmental Conditions**

| | |
|---|---|
| Laboratory Temperature [°C] : | 22 |
| Laboratory Humidity [%] : | 57 |

**SAMPLE IDENTIFICATION**

| | |
|---|---|
| Model : | D30 |
| Color : | Black |
| Size : | L(59-60CM) |
| Weight [g] : | 1517.00 |
| Manufacturing Date : | 06 Nov 2025 |

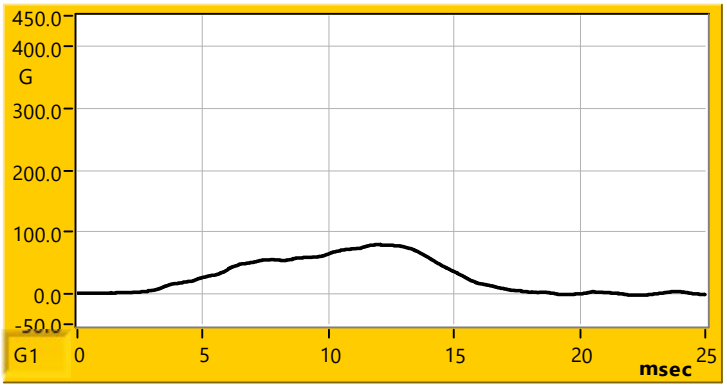
| | |
|---|---|
| Standard Request : | FMVSS No.218 |
| Identification Code : | 2487.21625.001-D |
| Headform Model : | D.O.T. |
| Headform Size : | C D.O.T |
| Conditioning : | Wet |
| Drop mass assembly : | 4.979 kg |

Batch Number

Ref. P.O. Number

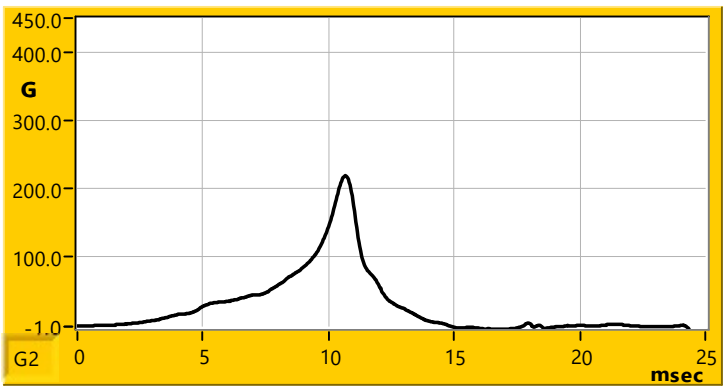
| Impact # | Position | Anvil type | Drop Height (cm) | Energy (Joules) | Friction (%) | Time Gate (msec) | Velocity IN (m/sec) | Peak Acc.(G) | Delta T 150G (msec) | Delta T 200G (msec) | HIC | SI | PASS or FAIL | Test Time | Test Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | LF FR | HEMI | 145.0 | 69 | 0.99 | 4.82 | 5.28 | 79.0 | 0.0 | 0.0 | 264 | 292 | Pass | 10:54:55 | 2025-11-11 |
| 2 | LF FR | HEMI | 145.0 | 69 | 1.18 | 4.83 | 5.27 | 220.0 | 1.0 | 0.5 | 646 | 863 | Pass | 10:55:02 | 2025-11-11 |
| 3 | RT RR | HEMI | 145.0 | 69 | 0.99 | 4.82 | 5.28 | 92.0 | 0.0 | 0.0 | 363 | 403 | Pass | 11:00:37 | 2025-11-11 |
| 4 | RT RR | HEMI | 145.0 | 69 | 1.18 | 4.83 | 5.27 | 133.0 | 0.0 | 0.0 | 605 | 678 | Pass | 11:00:45 | 2025-11-11 |
| 5 | RT FR | FLAT | 192.0 | 91 | 1.57 | 4.22 | 6.04 | 152.0 | 0.8 | 0.0 | 879 | 1015 | Pass | 11:09:08 | 2025-11-11 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

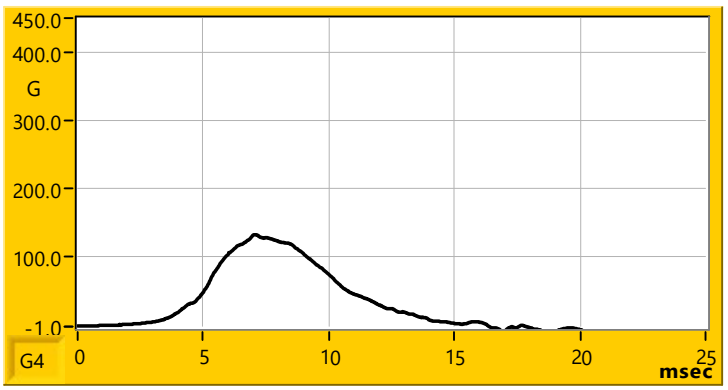
**IMPACT TEST RESULTS**

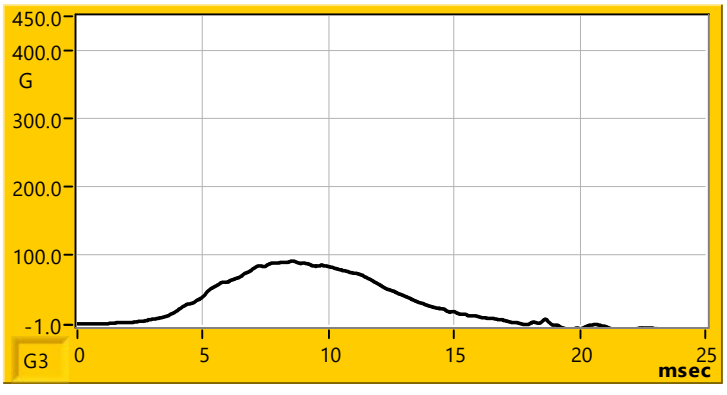


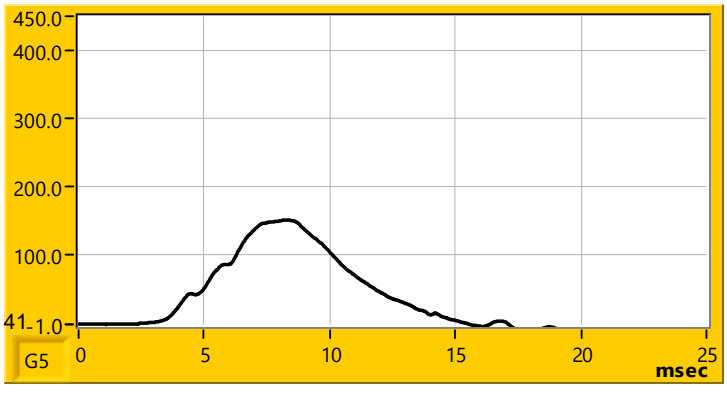

**PASS / FAIL CRITERIA**

| | |
|---|---|
| Maximum Peak G's authorized : | 400 |
| Maximum Peak m/s2 authorized : | 3923 |



# Testing Report

CADEX THE SPECIALIST

| | |
|---|---|
| Laboratory Technician name : | Edward |
| Helmet Manufacturer : | |

**Environmental Conditions**

| | |
|---|---|
| Laboratory Temperature [°C] : | 22 |
| Laboratory Humidity [%] : | 57 |

**SAMPLE IDENTIFICATION**

| | |
|---|---|
| Model : | D30 |
| Color : | Black |
| Size : | L(59-60CM) |
| Weight [g] : | 1517.00 |
| Manufacturing Date : | 06 Nov 2025 |

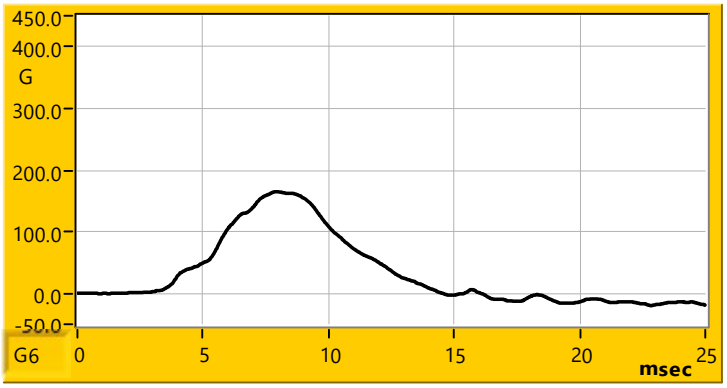
| | |
|---|---|
| Standard Request : | FMVSS No.218 |
| Identification Code : | 2487.21625.001-D |
| Headform Model : | D.O.T. |
| Headform Size : | C D.O.T |
| Conditioning : | Wet |
| Drop mass assembly : | 4.979 kg |

Batch Number

Ref. P.O. Number

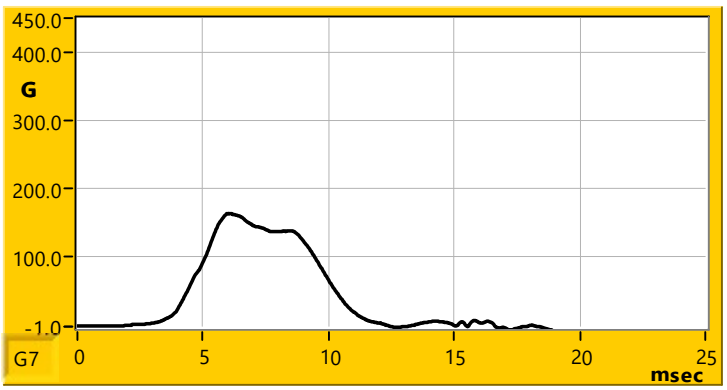
| Impact # | Position | Anvil type | Drop Height (cm) | Energy (Joules) | Friction (%) | Time Gate (msec) | Velocity IN (m/sec) | Peak Acc.(G) | Delta T 150G (msec) | Delta T 200G (msec) | HIC | SI | PASS or FAIL | Test Time | Test Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | RT FR | FLAT | 192.0 | 89 | 2.23 | 4.24 | 6.00 | 165.0 | 1.9 | 0.0 | 1053 | 1201 | Pass | 11:09:20 | 2025-11-11 |
| 7 | LF RR | FLAT | 192.0 | 90 | 2.06 | 4.24 | 6.01 | 164.0 | 1.2 | 0.0 | 1046 | 1134 | Pass | 11:21:24 | 2025-11-11 |
| 8 | LF RR | FLAT | 192.0 | 91 | 1.74 | 4.22 | 6.03 | 180.0 | 2.8 | 0.0 | 1242 | 1340 | Pass | 11:21:35 | 2025-11-11 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | |

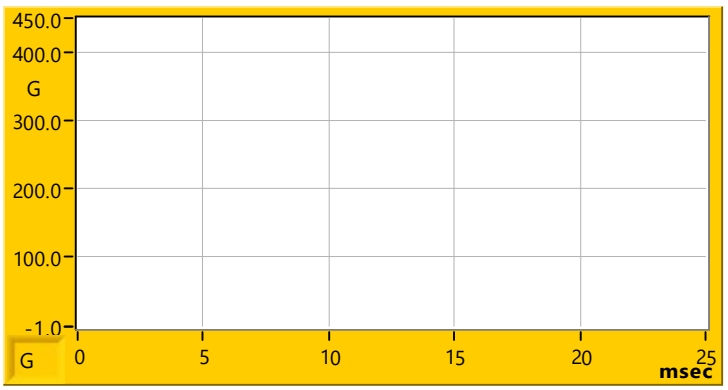
**IMPACT TEST RESULTS**

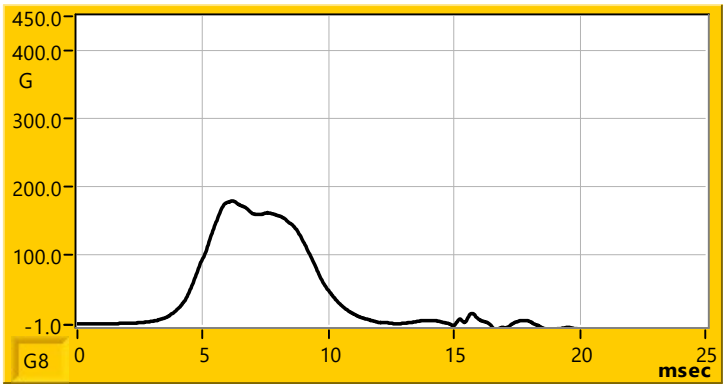


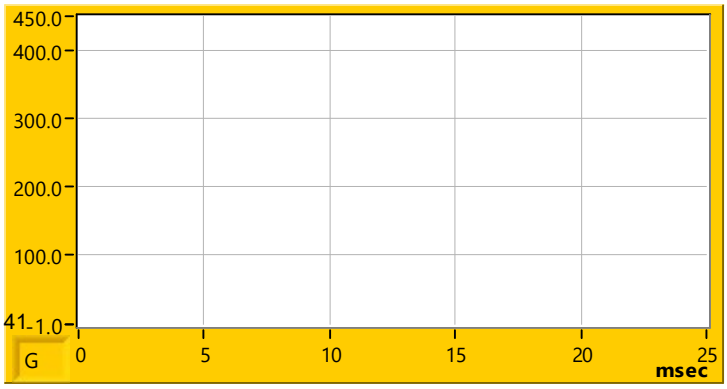

**PASS / FAIL CRITERIA**

| | |
|---|---|
| Maximum Peak G's authorized : | 400 |
| Maximum Peak m/s2 authorized : | 3923 |



# DOT Auto – Test results

## Laboratory

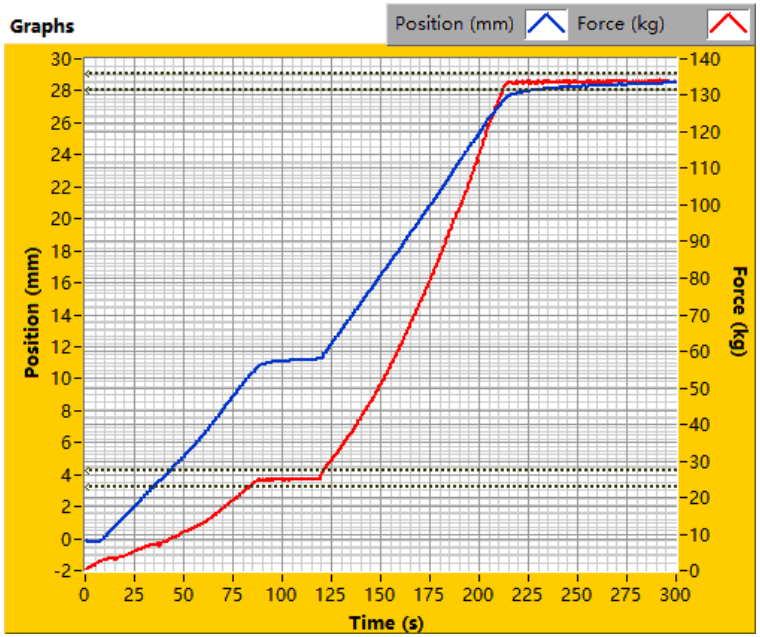
| | |
|---|---|
| **Laboratory** | ACT Lab |
| **Technician** | Ranzzi |
| **Temperature** | 22 |
| **Humidity** | 57 |

## Sample

| | |
|---|---|
| **Model** | D30 |
| **Color** | BLACK |
| **Size** | L(59-60cm) |
| **Weight** | 1534 |
| **Manufacturer** | CHINA YANG ZU |
| **Manuf. Date** | 11/25 |

## Infos

| | |
|---|---|
| **Standard** | FMVSS No.218 |
| **Comment** | 2487.21625.001-A |




**Results**

| Test | Time Data D/M/Y h:m:s | DL ? | Status | Tar1 (Kg) | Tar1 (S) | Tar2 (Kg) | Tar2 (S) | Delta(Del.1 to Del2 (mm) | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|
| Test#7 | [01/01/01 00:00:0 | NO | Valid | 22.7 | 30.0 | 136.0 | 120.0 | 17.2 | Pass |

# DOT Auto – Test results

## Laboratory

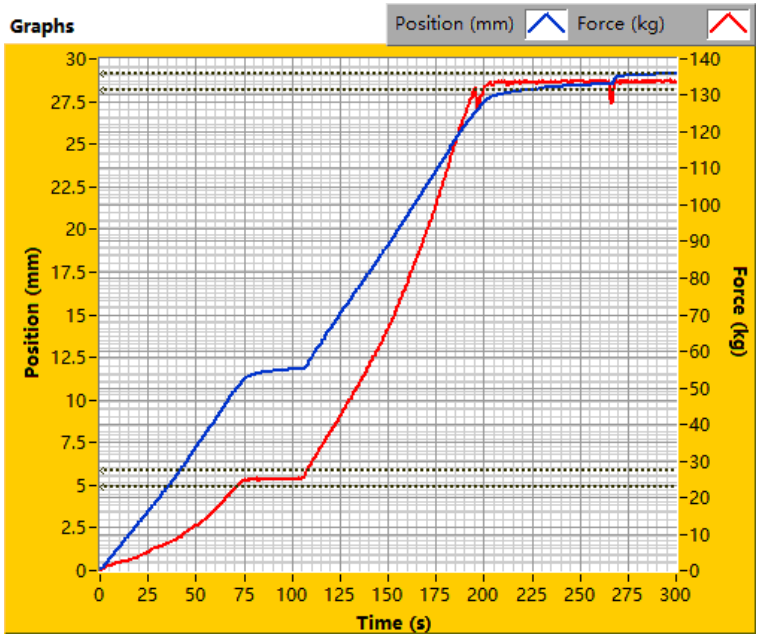
| | |
|---|---|
| **Laboratory** | ACT Lab |
| **Technician** | Ranzzi |
| **Temperature** | 22 |
| **Humidity** | 57 |

## Sample

| | |
|---|---|
| **Model** | D30 |
| **Color** | BLACK |
| **Size** | L(59-60cm) |
| **Weight** | 1542 |
| **Manufacturer** | CHINA YANG ZU |
| **Manuf. Date** | 11/25 |

## Infos

| | |
|---|---|
| **Standard** | FMVSS No.218 |
| **Comment** | 2487.21625.001-B |




**Results**

| Test | Time Data D/M/Y h:m:s | DL ? | Status | Tar1 (Kg) | Tar1 (S) | Tar2 (Kg) | Tar2 (S) | Delta(Del.1 to Del2 (mm) | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|
| Test#8 | [01/01/01 00:00:0 | NO | Valid | 22.7 | 30.0 | 136.0 | 120.0 | 16.9 | Pass |

# DOT Auto – Test results

## Laboratory

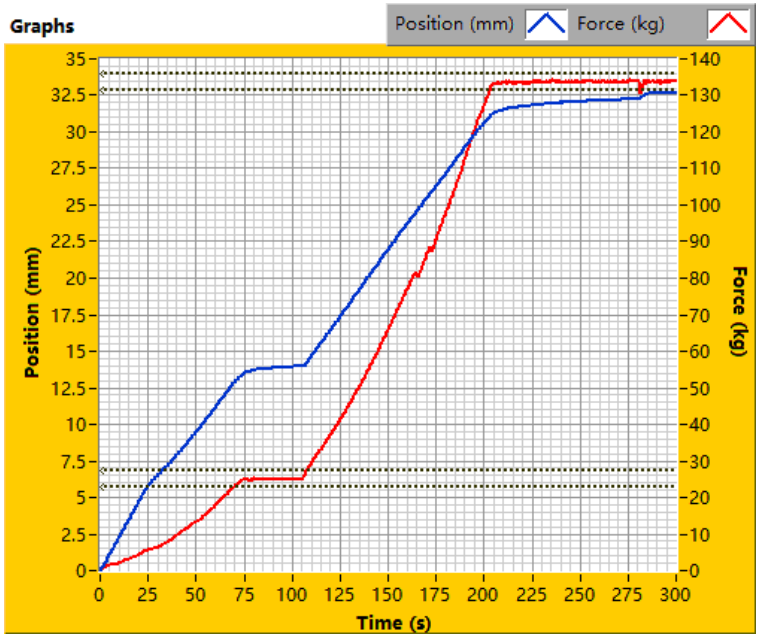
| | |
|---|---|
| **Laboratory** | ACT Lab |
| **Technician** | Ranzzi |
| **Temperature** | 22 |
| **Humidity** | 57 |

## Sample

| | |
|---|---|
| **Model** | D30 |
| **Color** | BLACK |
| **Size** | L(59-60cm) |
| **Weight** | 1514 |
| **Manufacturer** | CHINA YANG ZU |
| **Manuf. Date** | 11/25 |

## Infos

| | |
|---|---|
| **Standard** | FMVSS No.218 |
| **Comment** | 2487.21625.001-C |




**Results**

| Test | Time Data D/M/Y h:m:s | DL ? | Status | Tar1 (Kg) | Tar1 (S) | Tar2 (Kg) | Tar2 (S) | Delta(Del.1 to Del2 (mm) | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|
| Test#9 | [01/01/01 00:00:0 | NO | Valid | 22.7 | 30.0 | 136.0 | 120.0 | 18.4 | Pass |

# DOT Auto – Test results

## Laboratory

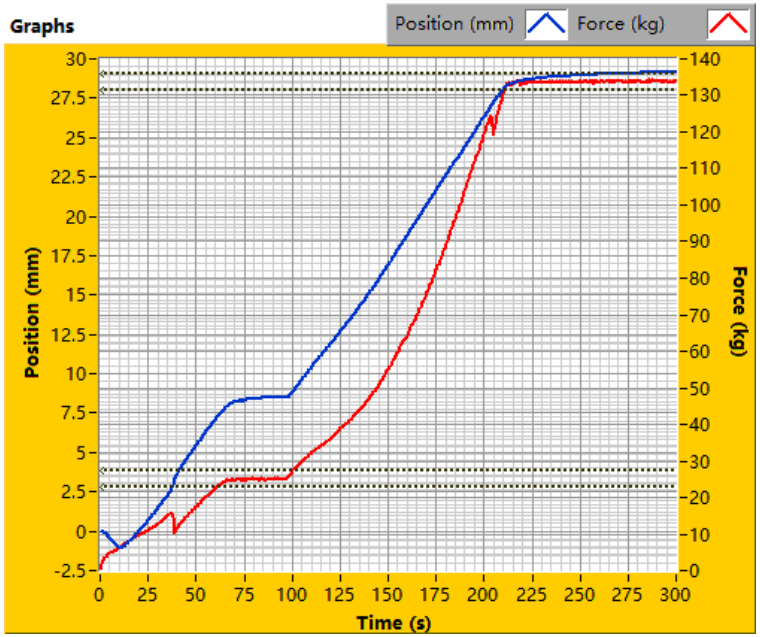
| | |
|---|---|
| **Laboratory** | ACT Lab |
| **Technician** | Ranzzi |
| **Temperature** | 22 |
| **Humidity** | 57 |

## Sample

| | |
|---|---|
| **Model** | D30 |
| **Color** | BLACK |
| **Size** | L(59-60cm) |
| **Weight** | 1517 |
| **Manufacturer** | CHINA YANG ZU |
| **Manuf. Date** | 11/25 |

## Infos

| | |
|---|---|
| **Standard** | FMVSS No.218 |
| **Comment** | 2487.21625.001-D |




**Results**

| Test | Time Data D/M/Y h:m:s | DL ? | Status | Tar1 (Kg) | Tar1 (S) | Tar2 (Kg) | Tar2 (S) | Delta(Del.1 to Del2 (mm) | Pass/Fail |
|---|---|---|---|---|---|---|---|---|---|
| Test#10 | [01/01/01 00:00:0 | NO | Valid | 22.7 | 30.0 | 136.0 | 120.0 | 20.5 | Pass |

# APPENDIX A

## INTERPRETATIONS OR DEVIATIONS FROM FMVSS 218

1. S5.6 Labeling: *Client has supplied digital artwork for section 5.6.1 and 5.6.2, ACT has only evaluated that the required content is present.
2. S6.4 Conditioning: Excess water on the water immersed sample was allowed to drip off before testing to prevent water damage to test equipment.

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# APPENDIX B

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# EQUIPMENT LIST AND CALIBRATION SCHEDULES

| EQUIPMENT LIST | | | | | | |
|---|---|---|---|---|---|---|
| **Asset Tag** | **Location** | **Description of part** | **Model Number** | **Serial Number** | **Verification Interval** | **Next Verification** |
| H1001 | Helmet Room | Fixture | Yellow Tower - 1000_00_MIMAT | NA | NA | NA |
| H1002 | Helmet Room | Fixture | Green Tower - Series 2000 | NA | NA | NA |
| H1011 | Helmet Room | Instrument | Impact Machine System DX3000 - Green tower | NA | NA | NA |
| H1013 | Helmet Room | Instrument | CPSC/ASTM Dynamic Strength Charge Amplifier - ATA2001 (Backup) | J72863 | Yes | Daily |
| H1015 | Helmet Room | Fixture | CPSC/ASTM Positional Stability Fixture | NA | 1 year | 5/5/2026 |
| H1017 | Helmet Room | Fixture | DOT Retention System Machine - SB033 | NA | 1 year | 5/5/2026 |
| H1034 | Helmet Room | Environmental chamber | Water Immersion Container | NA | NA | NA |
| H1043 | Helmet Room | Headform | ISO/EN960 A Partial Headform (Impact) | 4272 | 1 year | 5/5/2026 |
| H1044 | Helmet Room | Headform | ISO/EN960 C Partial Headform (Impact) | 6938 | 1 year | 5/5/2026 |
| H1045 | Helmet Room | Headform | ISO/EN960 E Partial Headform (Impact) | 4146 | 1 year | 5/5/2026 |
| H1046 | Helmet Room | Headform | ISO/EN960 J Partial Headform (Impact) | 4148 | 1 year | 5/5/2026 |
| H1047 | Helmet Room | Headform | ISO/EN960 M Partial Headform (Impact) | 4131 | 1 year | 5/5/2026 |
| H1048 | Helmet Room | Headform | ISO/EN960 O Partial Headform (Impact) | 4151 | 1 year | 5/5/2026 |
| H1049 | Helmet Room | Headform | DOT Small (Impact) | 5178 | 1 year | 5/5/2026 |
| H1050 | Helmet Room | Headform | DOT Medium (Impact) | 5179 | 1 year | 5/5/2026 |
| H1051 | Helmet Room | Headform | DOT Large (Impact) | 5190 | 1 year | 5/5/2026 |
| H1052 | Helmet Room | Drop Mass | CPSC/ASTM Spherical Impactor | NA | 1 year | 5/5/2026 |
| H1054 | Helmet Room | Drop Mass | ASTM/SNELL Chin Bar Impactor | NA | 1 year | 5/5/2026 |
| H1055 | Helmet Room | Anvil | CurbStone - CPSC/ASTM | NA | 1 year | 5/5/2026 |
| H1056 | Helmet Room | Anvil | Cylindrical | NA | 1 year | 5/5/2026 |
| H1059 | Helmet Room | Anvil | Triangular Hazard | NA | 1 year | 5/5/2026 |
| H1060 | Helmet Room | Anvil | Hemispherical - Yellow tower | NA | 1 year | 5/5/2026 |
| H1062 | Helmet Room | Anvil | Flat - Yellow tower | C240812-01 | 1 year | 5/5/2026 |
| H1091 | Helmet Room | Fixture | 40° Up Vision Angle Block | NA | 1 year | 5/5/2026 |
| H1092 | Helmet Room | Clamp | Split Ring Clamp - 119g | NA | 1 year | 5/5/2026 |
| H1093 | Helmet Room | Clamp | Split Ring Clamp - 210g | NA | 1 year | 5/5/2026 |
| H1094 | Helmet Room | Clamp | Split Ring Clamp - 378g | NA | 1 year | 5/5/2026 |
| H1095 | Helmet Room | Clamp | Split Ring Clamp - 451g | NA | 1 year | 5/5/2026 |
| H1096 | Helmet Room | Clamp | Split Ring Clamp - 505g | NA | 1 year | 5/5/2026 |
| H1097 | Helmet Room | Clamp | Split Ring Clamp - 597g | NA | 1 year | 5/5/2026 |
| H1098 | Helmet Room | Clamp | Split Ring Clamp - 1158g | NA | 1 year | 5/5/2026 |
| H1099 | Helmet Room | Anvil | Flat - Green tower | NA | 1 year | 5/5/2026 |
| H1100 | Helmet Room | Anvil | Hemispherical - Green tower | NA | 1 year | 5/5/2026 |
| H1101 | Helmet Room | Headform | DOT Small (Reference) | NA | 1 year | 5/5/2026 |
| H1102 | Helmet Room | Headform | DOT Medium (Reference) | NA | 1 year | 5/5/2026 |
| H1103 | Helmet Room | Headform | DOT Large (Reference) | NA | 1 year | 5/5/2026 |
| H1105 | Helmet Room | Drop Mass | Aluminum Ball Stem - Green tower | NA | 1 year | 5/5/2026 |
| H1106 | Helmet Room | Drop Mass | Steel Ball Stem | NA | 1 year | 5/5/2026 |
| H1107 | Helmet Room | Drop Mass | Magnesium Ball Stem | NA | 1 year | 5/5/2026 |
| H1126 | Helmet Room | Drop Mass | Complete Pistol Grip - Green tower | NA | 1 year | 5/5/2026 |
| H1127 | Helmet Room | Headform | ISO/EN 960 C Full Headform (Reference) | 6947 | 1 year | 5/5/2026 |
| H1128 | Helmet Room | Headform | DOT Small (Penetration) | NA | 1 year | 5/5/2026 |
| H1129 | Helmet Room | Headform | DOT Medium (Penetration) | NA | 1 year | 5/5/2026 |
| H1130 | Helmet Room | Headform | DOT Large (Penetration) | NA | 1 year | 5/5/2026 |
| H1143 | Helmet Room | Fixture | DOT Brow Opening 1 Inch Block | NA | 1 year | 5/5/2026 |
| H1146 | Helmet Room | Fixture | DOT Penetration Height Stick | NA | 1 year | 7/23/2025 |
| H1149 | Helmet Room | Mass | Testing Area Preload Ballast | NA | 1 year | 5/5/2026 |
| H1150 | Helmet Room | Drop Mass | 10kg Positional Stability Drop Mass | NA | 1 year | 5/5/2026 |
| H1189 | Helmet Room | Drop Mass | DOT Penetration Striker Tip | 070622-03 | 1 year | 8/5/2026 |
| H1196 | Helmet Room | Fixture | DOT Retention Machine Static Load - SB033 | NA | 1 year | 5/5/2026 |
| H1197 | Helmet Room | Fixture | DOT Retention LVDT Calibration Block | NA | 1 year | 11/26/2025 |
| H1204 | Helmet Room | Drop Mass | Complete Pistol Grip - Yellow tower | 120122-07 | 1 year | 5/5/2026 |
| H1205 | Helmet Room | Drop Mass | Ball Stem - Yellow tower | NA | 1 year | 5/5/2026 |
| H1213 | Helmet Room | Fixture | CPSC/ASTM Dynamic Retention Strength Fixture | NA | 1 year | 11/26/2025 |
| H1229 | Helmet Room | Fixture | Penetration Tube | NA | 1 year | 8/5/2026 |

| EQUIPMENT LIST CONTINUED | | | | | | |
|---|---|---|---|---|---|---|
| **Asset Tag** | **Location** | **Description of part** | **Model Number** | **Serial Number** | **Verification Interval** | **Next Verification** |
| H1057 | Helmet Room | Anvil | Edge | NA | 1 year | 5/5/2026 |
| H1058 | Helmet Room | Anvil | Equestrian Hazard | NA | 1 year | 5/5/2026 |
| H1061 | Helmet Room | Anvil | Skate Blade | NA | 1 year | 5/5/2026 |
| H1030 | Helmet Room | Environmental chamber | Oven #1 - 92*9240MBE | Oven #1 - 92*9240MBE | 1 year | 6/3/2026 |
| H1031 | Helmet Room | Environmental chamber | Oven #2 - DHG-9426 | Oven #2 - DHG-9426 | 1 year | 12/09/2025 |
| H1032 | Helmet Room | Environmental chamber | Freezer #1 - DW-25W300 | Freezer #1 - DW-25W300 | 1 year | 6/3/2026 |
| H1033 | Helmet Room | Environmental chamber | Freezer #2 - DW-50W225 | Freezer #2 - DW-50W225 | 1 year | 12/09/2025 |
| H1190 | Helmet Room | Environmental chamber | Oven - KH-120A | 2201-020 | 1 year | 12/09/2025 |
| H1026 | Helmet Room | Fixture | Laser Table - SB005 | Laser Table - SB005 | 1 year | 12/09/2025 |
| H1174 | Helmet Room | Anvil | MEP Pad | MEP Pad | 1 year | 5/5/2026 |
| H1210 | Helmet Room | Fixture | Peripheral Vision | NA | 1 year | 11/26/2025 |
| H1254 | Helmet Room 2 | Fixture | Mono-Rail Impact Tower 3-1000_00_MIMAT | 030223-01 | 1 year | 3/28/2026 |
| H1278 | Helmet Room 2 | Anvil | Flat Anvil | 092722-10 | 1 year | 4/18/2026 |
| H1279 | Helmet Room 2 | Anvil | Kerbstone Anvil | 092722-12 | 1 year | 4/18/2026 |
| H1282 | Helmet Room 2 | Drop Mass | Pistol Grip (New tower) | 120122-09 | 1 year | 4/18/2026 |

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| CALIBRATED MEASUREMENT DEVICES | | | | | | |
|---|---|---|---|---|---|---|
| **Asset Tag** | **Model Number** | **Measuring Range** | **Accuracy** | **Serial Number** | **Last Calibrated On** | **Calibration Due On** |
| H1003 | Velocity Gate - Yellow tower | 0-8.5m/s | ±0.0001m/s | HVTG120120810-1 | 10/29/2024 | 10/28/2025 |
| H1004 | Velocity Gate - Green tower | 0-8.5m/s | ±0.0001m/s | HVTG120090331-1 | 3/7/2025 | 3/7/2026 |
| H1006 | Accelerometer PCB 353B18 - Yellow & Green tower | ±500g | ±0.1% | 131607 | 2/6/2025 | 2/7/2026 |
| H1007 | Accelerometer PCB 353B18 - Green tower | ±500g | ≤1% | 86079 | 10/22/2025 | 10/22/2026 |
| H1010 | CCS PC4300 - Green tower | ±500g | ±0.1% | CCS120090331-1 | 3/7/2025 | 3/7/2026 |
| H1012 | CPSC/ASTM Dynamic Strength LVDT - C20101007753 (Backup) | 2 Inch | ±0.1% | C20101007753 | 12/18/2024 | 12/17/2025 |
| H1025 | Electronic Scale - BT-6 | 0-6kg | ±0.1g | 12230126 | 6/4/2025 | 6/3/2026 |
| H1036 | Hygrothermograph #1 - TH-602F | -30~60℃, 0-100% | ±1℃ | 3238 | 6/5/2025 | 6/4/2026 |
| H1063 | Digital tape - 5m | 0-5m | ±0.1mm | 78223 | 12/14/2024 | 12/13/2025 |
| H1299 | Digital Tape - eTape16 G1 | 0-5m | ±1mm | NA | 09/23/2025 | 09/22/2026 |
| H1064 | CCS PC4400 - Yellow tower | ±500g | ±0.1% | CCS120120810-1 | 10/29/2024 | 10/28/2025 |
| H1070 | DOT Retention System Load Cell - 9363-B10-300-20T1 | 0-300lb | ±0.1kg | 80310843 | 6/4/2025 | 6/3/2026 |
| H1072 | Hygrothermograph #4 - TH600B | -20~100℃, 0-100% | ±1℃ | Q/MDS001-2017-2 | 6/5/2025 | 6/4/2026 |
| H1073 | Height Gauge | 0-500mm | ±0.01mm | 8811213838273610 | 12/10/2024 | 12/09/2025 |
| H1075 | Digital Level - SPI TRONIC Pro 360 | 0-360° | ±0.1° | 31-038-3 | 12/14/2024 | 12/13/2025 |
| H1076 | Calorifier - CN-111 | 18-35℃ | ±0.1℃ | NA | 12/10/2024 | 12/09/2025 |
| H1077 | ACT Tape | 0-1.5m | ±1mm | NA | 12/14/2024 | 12/13/2025 |
| H1117 | Helmet Internal Circumference Measure Tool | 49-62cm | ±1mm | NA | 12/15/2024 | 12/14/2025 |
| H1172 | Height Measurement Rod #6 | 600±5mm | ±1mm | 032216-02 | 6/4/2025 | 6/3/2028 |
| H1180 | CPSC/ASTM LVDT & Sensor Box | 2 Inch | ±0.1% | 04140748-001 | 12/18/2024 | 12/17/2025 |
| H1184 | Accelerometer PCB 353B18 - Yellow tower | ±500g | ≤1% | LW226664 | 10/22/2025 | 10/22/2026 |
| H1193 | I-square | 150*100mm | ±1mm | SJT-43008 | 12/14/2024 | 12/13/2025 |
| H1194 | Triangular Ruler | 190mm | ±1mm | SJT-43111 | 12/14/2024 | 12/13/2025 |
| H1198 | LVDT Volfa LWE-200 (Head) - DOT Retention | 0-200mm | ±0.05% | NA | 12/18/2024 | 12/17/2025 |
| H1199 | LVDT Volfa LWE-200 - DOT Retention Machine | 0-200mm | ±0.05% | NA | 12/18/2024 | 12/17/2025 |
| H1200 | VPG load cell - 9363-B10-500-20T1 - DOT Retention Machine | 0-500lb | ±0.1kg | 90139705 | 12/18/2024 | 12/17/2025 |
| H1214 | DOT Retention System LVDT (Head) - LWE-200 | 0-50mm | ±0.05% | 27008-10 | 6/4/2025 | 6/3/2026 |
| H1216 | Digital Vernier Caliper - GLA13S | 0-300mm | 0~200mm: ±0.03mm; 200~300mm:±0.04mm | K23D014332 | 6/4/2025 | 6/3/2026 |
| H1249 | LVDT Volfa LWE-200 | 0-200mm | ±0.05% | 210015004 | 12/18/2024 | 12/17/2025 |
| H1287 | Temperature Logger | -40℃~85℃, 5%RH~99%RH | ±0.3℃ (15℃~20℃), ±0.5℃ (20℃~30℃), ±3%RH (40%~60%), ±4%RH (60%~80%) | D13000017 | 6/5/2025 | 6/4/2026 |
| H1288 | Temperature Logger | -40℃~85℃, 5%RH~99%RH | | D13000014 | 6/5/2025 | 6/4/2026 |
| H1289 | Temperature Logger | -40℃~85℃, 5%RH~99%RH | | D13000011 | 6/5/2025 | 6/4/2026 |
| H1290 | Temperature Logger | -40℃~85℃, 5%RH~99%RH | | D13000018 | 6/5/2025 | 6/4/2026 |
| H1291 | Temperature Logger | -40℃~85℃, 5%RH~99%RH | | D13000020 | 6/5/2025 | 6/4/2026 |
| H1292 | Temperature Logger | -50℃~70℃ | ±1℃ | 6927148600180 | 6/5/2025 | 6/4/2026 |
| H1262 | Accelerometer PCB 356B21 | 50-2,000g | ±0.1g | LW347345 | 5/6/2025 | 5/5/2026 |
| H1264 | CCS Box PC4400 (tower 3) | ±500g | ≤ 1% | CCS120221216-1 | 5/15/2025 | 5/14/2026 |
| H1266 | Velocimeter-2 (tower 3) | 0-8.5m/s | ±0.0001m/s | HVTG120221216-2 | 5/15/2025 | 5/14/2026 |

Contract File No.: 2487.21625
Test File: 001

Technician: Edward Wang
Test Date: 11 November 2025

# APPENDIX C

# PHOTOGRAPHS

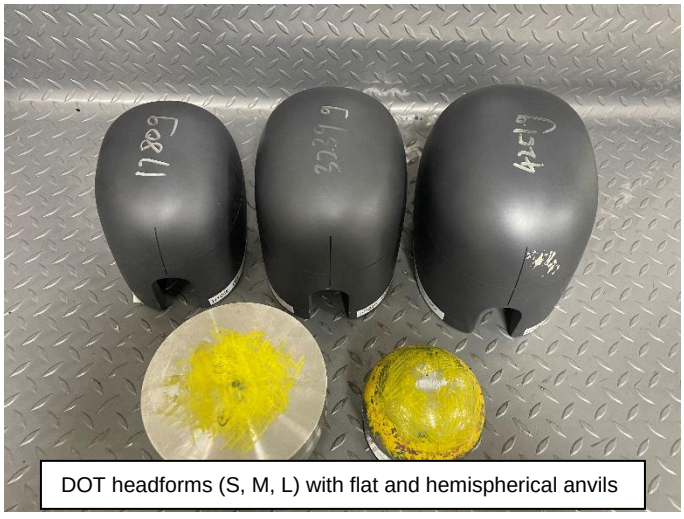
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Impact attenuation test apparatus and data acquisition equipment



Retention system test apparatus



DOT headforms (S, M, L) with flat and hemispherical anvils



Penetration test apparatus with adjustable base




High temperature conditioning chamber



High temperature conditioning chamber



Water immersion equipment



Low temperature conditioning chambers






SCOS
SCOS








L
59-60cm


SCOTT
SCOTT
L

| Size:L(59-60CM) |
| --- |
| Manufacturer:<br>CHINA YANG ZU S.A.C. |
| Date of manufacture: 2025-11 |

# WARNING

Shell/ Plastic /liner Polystyrene

No helmet can protect against all possible or foreseeable impacts, the purpose is to reduce the harmful effect of a blow to the head. Riding motorcycles or off-road vehicles implies user acceptance some reasonably foreseeable impacts may exceed this helmets capability to protect against injury. Helmet afford no protection from neck injury. Make no modifications to this helmet, For maximum protection helmet must fit firmly on the head and the chin strap must be securely fastened. Read instructions to ensure proper fit. If helmet experiences a severe blow, though damage is not visible, the helmet should be destroyed and replaced. Helmet can be seriously damaged by some common substances, cleaning agents, without being visible to the user, Apply only mild soap and water to clean helmet.

Manufactured date:2025-11
Model: D30
DO NOT REMOVE THIS LABEL
Manufactured by
CHINA YANG ZU S.A.C.
Made in China
DOT FMVSS No.218


BRX
D30
DOT
FMVSS No. 218
CERTIFIED

## NOTICE

1. The report is not effective without the signature of the person(s) authorizing the report (ACT Lab's authorized signatory is John A. Bogler (President)).
2. The report is not valid if altered.
3. Claims have to be made within 15 days after receipt of this report.
4. The results of this test report relate only to the items tested.
5. The results apply to the samples as received.
6. For reports that contain results from external test service providers: Results from external test service providers are supplied by the customer and can affect validity of results.
7. The results of this test report apply ASTM E29:2022 - Rounding Method, unless otherwise requested or noted within the report.
8. Decision rule applied according to Section 4.2.1 “Binary Statement for Simple Acceptance Rule” as stated in "ILAC-G8:09/2019 - Guidelines on the Reporting of Compliance with Specification".

**********

**END OF REPORT**

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