



OREGON BALLISTIC LABORATORIES

Helmet Drop Impact Test

Customer: Armourer's Choice
OBL ID#: 29512
Test Date: 7/2/2021
Purchase Order:

TEST SAMPLE

Sample No.: 71
Lot No.: N/A
Serial No.: N/A
Plies: N/A
Description: Ballistic Helmet

Size: Large
Weight (lb.): 3.15
Thickness: 0.409 0.425 0.631 0.371
Avg. Thk. (in): 0.459

TEST SET-UP

Mount Type: FMVSS218
Headform Size: DOT-D
Drop Mass:
Time Gate Distance: 2.00"
Filtering: CFC 1000
Impact Type: Uni-Axial
Anvil Type: DOT Hemispherical
Head Positioning Index (HPI)
Accelerometer:
Data Acquisition System: HBM Gen3t

RANGE CONDITIONS

Range #: 1
Temperature: 68.0 °F
Bar. Pressure: 29.97 in. Hg
Rel. Humidity: 38.0 %
Conditioning: Ambient
Sample Temp.: 68 °F
Recorder: Justin Greely

STANDARDS / PROCEDURES

AR-PD-10-02 Section 4.9.13 Velocity 10 fps +0.3/-0.3, Peak Force < 150G

IMPACT NO.	Location	Required Velocity (fps)	Drop Height (in.)	Gate Time (ms)	Velocity (fps)	Peak Force (G's)	Average Force (G's)	Time Between Impacts (s)	Notes
1	Crown	10.0	21.25	16.70	9.98	51.23	52.2	100	0 degrees off vertical
2	Crown	10.0	21.25	16.75	9.95	53.23			0 degrees off vertical
3	Front	10.0	21.25	16.50	10.10	145.20	131.7	85	35 degrees off vertical
4	Front	10.0	21.25	16.49	10.11	118.29			35 degrees off vertical
5	Rear	10.0	21.25	16.51	10.09	75.82	92.3	75	20 degrees off vertical
6	Rear	10.0	21.25	16.67	10.00	108.86			20 degrees off vertical
7	Left	10.0	21.25	16.91	9.86	100.29	103.8	90	20 degrees off vertical
8	Left	10.0	21.25	16.69	9.99	107.39			20 degrees off vertical
9	Right	10.0	21.25	16.69	9.99	95.94	79.1	90	20 degrees off vertical
10	Right	10.0	21.25	16.71	9.97	62.33			20 degrees off vertical
11	Left Nape	10.0	21.25	16.71	9.97	117.22	118.7	68	25 degrees off vertical
12	Left Nape	10.0	21.25	16.65	10.01	120.09			25 degrees off vertical
13	Right Nape	10.0	21.25	16.71	9.97	119.54	126.2	61	25 degrees off vertical
14	Right Nape	10.0	21.25	16.59	10.05	132.82			25 degrees off vertical

REMARKS:

TEST RESULTS:

Test sample satisfied the requirements given.

FOOTNOTES: