SAFETY COMPLIANCE TESTING FOR ASTM F1952-15
HELMETS USED FOR DOWNHILL MOUNTAIN BICYCLE RACING

Brand	**:** Not Specified
Model	**:** DH-619
Tested Size	**:** L (59-64 cm)
Stock / Model Number	**:** Not Specified
Country of Origin	**:** China
Age Grading	**:** 5 and older
Children's Product	**:** Not Specified

Prepared For:

Strategic Sports Ltd.
The Third of Liu Huang District,
Chashan Town, Dongguan City,
Guangdong Province, China

Issue Date: 17 March 2021

Final Report: 505.0183.002

Tested By:
Taicang ACT Sporting Goods Testing Co., Ltd.
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This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated April 2017.) The Joint Communiqué is available on publications and resources page of the ILAC website at http://www.ilac.org. Accreditation listing and certificate can be found at http://www.iasonline.org.

HELMET DATA

HELMET BRAND NAME: Not Specified

HELMET MODEL DESIGNATION: DH-619

HELMET MANUFACTURER: Strategic Sports Ltd.

HELMET SIZE: L (59-64 cm)

DATE OF MANUFACTURE: 03/21

AGE GRADING: Not Specified

EPS COLOR: Black

BUCKLE TYPE: ITW Nexus/A

LOT NUMBER: Not Specified

PURCHASE ORDER #: Not Specified

HELMET COVERAGE: Partial _____ Full: _____ Complete: X

TEST HEADFORM SIZE: EN960 O

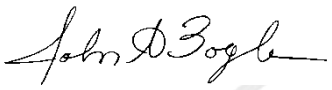
HELMET POSITIONING INDEX: 30 mm

Helmet Number:	Weight (g):	Helmet Number:	Weight (g):
1.Ambient	756	**4.Wet**	754
2.Hot	761	**5.Ambient**	758
3. Cold	756		

Conditioning Temperatures	
Lab Humidity:	57%
Ambient:	22°C
Hot:	50°C
Cold:	-15°C
Wet:	21°C

TEST SUMMARY

Test Requirements	Pass/Fail
Peripheral Vision	Pass
Projections	Pass
Positional Stability	Pass
Dynamic Strength Retention	Pass
Impact Attenuation	Pass
Labels and Warnings	Pass
Chin Bar Deflection	Pass

Reviewed by: John Bogler 

Tested By: Edward Wong 

Comments:

1. All helmets were received in undamaged condition and were appropriate for testing.
2. These helmets appear to be constructed of materials that are not known to cause skin irritation or disease.
3. Weights listed above for helmets 1-5 are as tested with visor removed.
4. This helmet met all requirements for ASTM F1952.

LABELING

Section	**Labeling -** Each helmet shall be marked with durable labeling so that the following information is legible and easily visible to the user:	**Present on Helmet?** Yes / No
F1446: Standard Test Methods for Equipment and Procedures Used in Evaluating the Performance Characteristics of Protective Headgear		
12.4	Each helmet shall contain labels with at least the following information, using terms and symbols commonly known and easily visible to users. The label(s) should be likely to remain on the helmet and legible throughout the intended design life of the helmet.	Yes
12.4.1	The number of the standard specification which the manufacturer certifies that it meets, including the two-digit version year appended to the number.	Yes
12.4.2	Model designation	Yes
12.4.3	Name of manufacturer	Yes
12.4.4	Month and year of manufacture	Yes
12.4.5	A label that warns the user that no helmet can protect against all possible impacts and that for maximum protection the helmet must be fitted and attached properly to the wearer's head in accordance with the manufacturer's fitting instructions.	Yes
12.4.6	A label that warns the user that the helmet may, after receiving an impact, be damaged to the point that it is no longer adequate to protect the head against further impacts, and that this damage may not be visible to the user. This label should also state that a helmet that has sustained an impact should be returned to the manufacturer for competent inspection or be destroyed and replaced.	Yes
12.4.7	A label that warns the user that the helmet can be damaged by contact with common substances (for example, certain solvents, cleaners, hair tonics, etc.) and that this damage may or may not be visible to the user. This label should also list any recommended cleaning agents or procedures, or both.	Yes
12.4.8	Any other warnings, cautions, or instructions specified in the individual standard specification.	Yes
12.4.9	Each helmet shall have accompanying fitting and positioning instructions including graphic representation of proper positioning.	Yes (In manual)
F1952 Standard Specification for Helmets Used for Downhill Mountain Bicycle Racing		
3.2	Shall have the words "For downhill mountain bicycle racing."	Yes

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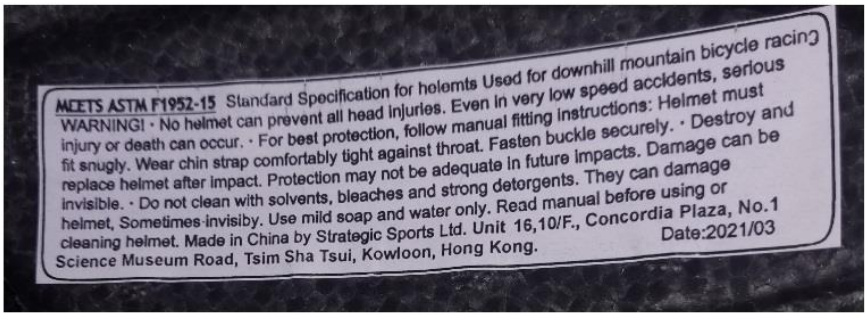

505.0183.002 – Labels

SUMMARY REPORT

HELMET ID	Condition	Brand Name	Model	Date of Manufacture	Helmet Size	Headform Size
1	Ambient	Not Specified	DH-619	03/21	L	EN960 O
2	Hot	Not Specified	DH-619	03/21	L	EN960 O
3	Cold	Not Specified	DH-619	03/21	L	EN960 O
4	Wet	Not Specified	DH-619	03/21	L	EN960 O
5	Ambient	Not Specified	DH-619	03/21	L	EN960 O

RETENTION SYSTEM STRENGTH TEST

HELMET ID	Model	Headform Size	Condition	Maximum Elongation (mm)	Residual Elongation (mm)	Pass/Fail
2	DH-619	EN960 O	Hot	16.9	6.2	Pass
3	DH-619	EN960 O	Cold	18.3	14.3	Pass
4	DH-619	EN960 O	Wet	16.9	12.9	Pass

Comment:

1. Test Criteria: The retention system shall remain intact without elongating more than 30 mm.

CHIN BAR RIGIDITY TEST

HELMET ID	Model	Condition	Maximum Elongation (mm)	Residual Elongation (mm)	Pass/Fail
5	DH-619	Ambient	38.9	13.4	Pass

Comment:

1. Test Criteria: The maximum deflection of the chin bar shall not exceed 60 mm.

SYSTEM CHECK – IMPACT ATTENUATION

SYSTEMS CHECK	TEST RECORD	HEADFORM POSITION	DROP (meters)	VEL. (m/s)	PEAK (g)
PRETEST	Pre 1	Crown	1.50	5.4144	394.8
	Pre 2	Crown	1.50	5.4317	398.2
	Pre 3	Crown	1.50	5.4052	393.3
PRETEST AVERAGE		XXXX	XXXX	XXXX	395.4
POSTTEST	Post 1	Crown	1.50	5.3792	399.2
	Post 2	Crown	1.50	5.3381	400.7
	Post 3	Crown	1.50	5.4065	399.7
POSTTEST AVERAGE		XXXX	XXXX	XXXX	399.9

IMPACT TEST SUMMARY

Helmet ID	Impact Site #	Impact Location	Anvil	Condition	Velocity (m/sec)	Peak Acc. (g)	Pass/ Fail
1	1	LF Side	Flat	Ambient	6.1594	201.8	Pass
1	2	Rear	Flat	Ambient	6.1393	208.7	Pass
1	3	Front	Hemi	Ambient	5.6013	175.2	Pass
1	4	RT Side	Curb	Ambient	5.5708	153.6	Pass
2	1	LF Side	Flat	Hot	6.2073	180.6	Pass
2	2	Rear	Flat	Hot	6.2235	193.4	Pass
2	3	Front	Hemi	Hot	5.5867	154.6	Pass
2	4	RT Side	Curb	Hot	5.6569	143.7	Pass
3	1	LF Side	Flat	Cold	6.1788	199.3	Pass
3	2	Rear	Flat	Cold	6.2047	210.2	Pass
3	3	Front	Hemi	Cold	5.5944	140.8	Pass
3	4	RT Side	Curb	Cold	5.6572	147.7	Pass
4	1	LF Side	Flat	Wet	6.1501	191.0	Pass
4	2	Rear	Flat	Wet	6.2321	204.3	Pass
4	3	Front	Hemi	Wet	5.5741	154.1	Pass
4	4	RT Side	Curb	Wet	5.6518	151.1	Pass

Comment:

1. Impact Attenuation: The peak acceleration of any impact shall not exceed 300 g.

EQUIPMENT LIST AND CALIBRATION SCHEDULES

Testing Equipment						
Item No.	**Description**	**Manufacturer**	**Model**	**S/N**	**Date Last Checked**	**Date Next Check**
---	Computer	DELL	Optiplex 5040	3K51LF2	N/A	N/A
H1001	Monorail/Tri-Axial	Cadex	1000_00_MIMA	None	N/A	N/A
H1002	Monorail	Cadex	Series 2000	None	N/A	N/A
H1010	Control Center System	Cadex	Pc4300	CCS120090331-1	N/A	N/A
H1011	Impact Machine Control	Cadex	DX3000	None	N/A	N/A
H1015	Positional Stability Fixture	Protec	None	None	11 Oct 2020	10 Apr 2021
H1017	Dynamic Strap Machine	Cadex	SB033	None	N/A	N/A
H1026	Laser Test Line Table	Cadex	SB005	TLTV2KB	12 Jun 2020	11 Dec 2020
H1027	Peripheral Vision Apparatus	Hongtu	H-002	0.7°	11 Mar 2020	10 Mar 2021
H1030	High Temp Cabinet	Shanghai Boxun	92*9240MBE	8285	28 Jun 2020	27 Jun 2021
H1031	High Temp Cabinet	/	DHG-9426	1503338018	11 Sep 2020	10 Dec 2020
H1032	Low Temp Cabinet	Haier	DW-25W300	BE062100NO	28 Jun 2020	27 Jun 2021
H1033	Low Temp Cabinet	Haier	DW-50W225	F8LMJ	11 Sep 2020	10 Dec 2020
H1034	Water Conditioning Container	Rubbermaid	None	None	N/A	N/A
H1038	EN 960 Headform A	Cadex	EN 960	6058	12 Dec 2019	11 Dec 2020
H1039	EN 960 Headform E	Cadex	EN 960	6055	12 Dec 2019	11 Dec 2020
H1040	EN 960 Headform J	Cadex	EN 960	6009	12 Dec 2019	11 Dec 2020
H1041	EN 960 Headform M	Cadex	EN 960	6053	12 Dec 2019	11 Dec 2020
H1042	EN 960 Headform O	Cadex	EN 960	6051	12 Dec 2019	11 Dec 2020
H1043	ISO Headform A	Cadex	ISO	4272	12 Dec 2019	11 Dec 2020
H1044	ISO Headform C	Cadex	ISO	6938	12 Dec 2019	11 Dec 2020
H1045	ISO Headform E	Cadex	ISO	4146	12 Dec 2019	11 Dec 2020
H1046	ISO Headform J	Cadex	ISO	4148	12 Dec 2019	11 Dec 2020
H1047	ISO Headform M	Cadex	ISO	4131	12 Dec 2019	11 Dec 2020
H1048	ISO Headform O	Cadex	ISO	4151	12 Dec 2019	11 Dec 2020
H1049	DOT Headform	Cadex	Small	3570	02 Jan 2020	30 Jun 2020
H1050	DOT Headform	Cadex	Medium	5057	02 Jan 2020	30 Jun 2020
H1051	DOT Headform	Cadex	Large	6182	02 Jan 2020	30 Jun 2020
H1053	System Check MEP Pad	Cadex	345_08_MP60	30051201	12 Dec 2019	11 Dec 2020
H1054	Chin Bar Anvil	/	None	None	30 Jun 2020	29 Dec 2020
H1055	Anvil	Cadex	Curb	None	12 Dec 2019	11 Dec 2020
H1056	Anvil	Cadex	Cylinder	None	12 Dec 2019	11 Dec 2020
H1057	Anvil	Cadex	Edge	None	12 Dec 2019	11 Dec 2020
H1058	Anvil	Cadex	Equestrian	None	12 Dec 2019	11 Dec 2020
H1059	Anvil	Cadex	Hazard	None	12 Dec 2019	11 Dec 2020
H1060	Anvil	Cadex	Hemispherical	None	12 Dec 2019	11 Dec 2020
H1061	Anvil	Cadex	Blade	None	12 Dec 2019	11 Dec 2020
H1062	Anvil	Cadex	Flat	None	12 Dec 2019	11 Dec 2020
H1064	Control Center System	Cadex	CCS-PC 4400	CCS120120810-1	N/A	N/A
H1066	DOT Penetration Fixture	CADEX	None	None	11 Sep 2020	10 Sep 2021
H1092	Clamp	Cadex	119	None	30 Jun 2020	29 Dec 2020
H1093	Clamp	Cadex	210	None	30 Jun 2020	29 Dec 2020
H1094	Clamp	Cadex	378	None	30 Jun 2020	29 Dec 2020
H1095	Clamp	Cadex	451	None	30 Jun 2020	29 Dec 2020
H1096	Clamp	Cadex	505	None	30 Jun 2020	29 Dec 2020
H1097	Clamp	Cadex	598	None	30 Jun 2020	29 Dec 2020
H1098	Clamp	Cadex	1160	None	30 Jun 2020	29 Dec 2020

Calibrated Measurement Equipment						
Item No.	Description	Manufacture and Model	Serial No.	Accuracy	Calibration	
					Last	Next
H1003	Velocity Gate	Cadex	HVTG120120810-1	0.16msec	02 Oct 2019	01 Oct 2020
H1004	Velocity Gate	Cadex	HVTG120090331-1	0.16msec	23 Jan 2020	22 Jan 2021
H1006	Accelerometer	PCB - 353B18	131607	9.932 mV/g	05 Oct 2020	04 Oct 2021
H1007	Accelerometer	PCB - 353B18	86079	10.30 mV/g	05 Oct 2020	04 Oct 2021
H1008	Digital Tape	Starrett	5027526-B	0.1mm	28 Jun 2020	27 Jun 2021
H1009	Digital Tape	Starrett	5027526	0.1 mm	25 Oct 2019	24 Oct 2020
H1012	LVDT Amplifier	Schaevitz - C20101007753	J72863	-	24 Oct 2019	23 Oct 2020
H1014	LVDT	Volfa - LWE-200	2002572	0.01	24 Oct 2019	23 Oct 2020
H1025	Scale	Shanghai Yousheng BT-6	12230126	0.2g	28 Jun 2020	27 Jun 2021
H1036	Environmental Monitoring	Anymeter TH-602F	3238	2%	28 Jun 2020	27 Jun 2021
H1073	Height Gauge	Guanglu	03000002	0.01 mm	22 Sep 2020	21 Sep 2021

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. Decision rule applied according to "ILAC-G8:03/2009 - Guidelines on the Reporting of Compliance with Specification".

END OF REPORT