

CERTIFICATION TESTING UNECE n°22 Series 05 <i>Internal Identification Test: E5HC</i>	
Job Number	MAR349131
Report	Code: GPX 6.5 Composite Extension 1 Date: 08 August 2016
Manufacturer	Name: Leatt® Corporation Address: 50 Kiepersol Crescent, Atlas Gardens , Durbanville, 7550, Cape Town, Republic South Africa
Representative	It does not apply
Sample	Helmet model: GPX 6.5 Composite Extension 1 Approval n°: 22R-050557/P Stickers from n°: - to n°: - Batch n°: - Arrival date: 04/08/2016 Testing date: 05-08/08/2016

Essential Technical Data		
SIZE RANGE	M(57) to L (60)-YOUTH (51-52)	
SHELL MATERIAL	CARBON	
WEIGHT	1250±50(Size M/L)/850±50(Size YOUTH)	
RETENTION SYSTEM	DD	
REFLECTIVE BANDS	Yes	
ENVIRONMENTAL CONDISTIONS	Temperature	26.3°
	Humidity	53.1%

Used Machine	Identifier /Manufacturer	expiry Date
M0015 Tracking point of impact	LTB 1079 (AD Engineering)	Daily Check IO 7.2.13
A0059/M0003 Shock absorption	MAU 1006E/DLS 9000 (AD Engineering)	08/09/2016
M0001 Conditioning chamber: Freezer	T616/40 (OCRAS E ZAMBELLI)	09/09/2016
M0075 Conditioning chamber: Oven	ABX 700NE(IARP)	09/09/2016
M0030 Compressibility	CTE 1068 (AD Engineering)	21/05/2020

The helmet was tested in the different configurations with internal sun visor and other critical components.

GPX 6.5 CARBON



GENERAL SPECIFICATION TEST
Sizes: M (57- 58) L (59-60)

Reference	General Specification	Result	
		Pass (or N/A)	Fail
6.1	Hard shell	X	
6.1	Impact absorption system (see test data in this report)	X	
6.1	Retention system	X	
6.2	Marked "Does not protect chin from impacts" (if applicable)	N/A	
6.4.1	Extent of protection	X	
6.4.2	Nape cylinder	X	
6.4.3	Protective padding	X	
6.5	Outer round surface – Auditive faculties	X	
6.6	Projections (2 mm)	X	
6.7	Rivets (h 2 mm, r 1 mm; h 2mm, r 2mm)	X	
6.8	Helmet interior	X	
6.9	Assembly	X	
6.10	Chin strap abrasion	X	
6.11 - 6.11.1	Retention system – Chin strap breadth (20 mm)	X	
6.11.2	Under-chin	X	
6.11.3	Chin strap regulation system	X	
6.11.4	Rigid parts	X	
6.11.5	Buckle – "Double D" or "Roll"	x	
6.11.6	Open strip	x	
6.11.7	Quick release (general requirement)	NAP	
6.11.8	Quick release (tests par. 7.3, 7.6, 7.7)	NAP	
6.11.9	Wrong buckle use	NAP	
6.12	Material properties (manufacturer declaration)	X	
6.13	Helmet breaking	X	
6.14, 6.14.3.1	Peripheral vision:	Lateral visual clearance 105°	X
6.14.3.2 6.14.3.3		Upward visual clearance 7°	X
		Downward visual clearance 45°	X
6.16.1 to 6.16.6	Reflective parts (see test reports)	X	

SPECIFICATION	
H.F. Size	57 to 60
Impact point	B / P / X / R / S
Anvil	Kerbstone / Flat
Conditioning [°C]	
AMB	20 °C ± 5 °C with a relative humidity of 65% ± 5%, for more than 4 hours
LOW	-20 °C ± 5 °C , for more than 4 hours and less than 6 hours
HIGH	+50 °C ± 5 °C , for more than 4 hours and less than 6 hours
UV+H ₂ O	Ultraviolet radiation by a 125-watt xenon- 48 hours Water spray 4 to 6 hours, 1 litre per minute
Speed [m/s]	7.5 m/s + 0.15 m/s (5.5 + 0.15 m/s for the S point)
HIC	≤2400
Deceleration	≤ 275

SHOCK ABSORPTION TESTS

Ref. 7.3

Helmet size L(59-60)- GPX 6.5 CARBON								
Sticker n°	Helmet Internal Id	H.F. Size	Impact point	Anvil	Cond. [°C]	Speed [m/s]	HIC ≤2400	Deceleration ≤ 275 [g]
-	16-1835	60	B	FLAT	AMB	7.52	1175	192
			X	FLAT		7.54	1195	190
			P	FLAT		7.51	2071	217
			R	FLAT		7.50	1203	175
-	16-1836	60	B	KERB	AMB	7.52	1343	157
			X	KERB		7.52	1018	190
			P	KERB		7.56	1943	209
			R	KERB		7.51	1063	153
-	16-1837	60	B	KERB	+50	7.54	1095	143
			X	KERB		7.52	879	148
			P	KERB		7.50	1823	205
			R	KERB		7.54	987	142
-	16-1838	60	B	FLAT	-20	7.54	1996	224
			X	FLAT		7.52	1153	193
			P	FLAT		7.51	1945	234
			R	FLAT		7.54	978	164
			S	FLAT		5.50	342	155
-	16-1839	60	B	KERB	UV +WET	7.52	1889	213
			X	KERB		7.57	1236	197
			P	FLAT		7.52	1716	188
			R	FLAT		7.52	974	150

Helmet size M(57-58)- GPX 6.5 CARBON

Sticker n°	Helmet Internal Id	H.F. Size	Impact point	Anvil	Cond. [°C]	Speed [m/s]	HIC ≤ 2400	Deceleration ≤ 275 [g]
-	16-1842	57	B	KERB	+50	7.51	1162	170
			X	KERB		7.52	947	164
			P	FLAT		7.52	1751	200
			R	FLAT		7.52	1105	160
-	16-1843	57	B	FLAT	-20	7.50	1332	181
			X	FLAT		7.55	941	170
			P	KERB		7.58	1794	199
			R	KERB		7.59	969	153
			S	FLAT		5.54	440	125

RIGIDITY TEST Ref. 7.5

Helmet GPX 6.5 CARBON			Load Direction	Deformation [mm]		
Sticker n°	Helmet Internal Id	Size		Initial (load 30N)	Max 40 [mm] (load 630N)	Final 15 [mm] (load 30N)
-	16-1840	L	Longitudinal	1	5	2
-	16-1841	L	Transversal	1	8	1

Helmet size YOUTH (51-52)GPX 6.5 CARBON								
Sticker n°	Helmet Internal Id	H.F. Size	Impact point	Anvil	Cond. [°C]	Speed [m/s]	HIC ≤2400	Deceleration ≤ 275 [g]
-	16-1827	50	B	FLAT	AMB	7.52	2137	225
			X	FLAT		7.54	1183	195
			P	FLAT		7.52	2058	207
			R	FLAT		7.50	1087	157
-	16-1846	50	B	KERB	AMB	7.58	1387	182
			X	KERB		7.56	902	161
			P	KERB		7.57	1325	173
			R	KERB		7.51	1074	149
-	16-1847	50	B	KERB	+50	7.54	1419	169
			X	KERB		7.50	766	143
			P	KERB		7.50	1393	167
			R	KERB		7.55	810	127
-	16-1848	50	B	FLAT	-20	7.55	2306	233
			X	FLAT		7.52	984	179
			P	FLAT		7.51	2141	213
			R	FLAT		7.54	1114	163
			S	FLAT		5.50	391	99
-	16-1849	50	B	KERB	UV +WET	7.52	2107	226
			X	KERB		7.57	1232	189
			P	FLAT		7.52	1490	176
			R	FLAT		7.52	990	141

RETENTION SYSTEM STRENGTH TEST Ref. 7.6

Helmet GPX 6.5 CARBON				Extension	
Sticker n°	Helmet Internal Id	Size	Chin strap	Dynamic 35 [mm]	Residual 25 [mm]
-	16-1850	YOUTH	DD	24	6

ROLL OFF TEST Ref. 7.7

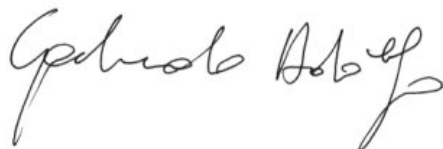
Sticker n°	Helmet Internal Id	Helmet Size	Chin strap	Roll off Angle ≤ 30°
-	16-1850	YOUTH	DD	16

RIGIDITY TEST Ref. 7.5						
Helmet GPX 6.5 CARBON			Load Direction	Deformation [mm]		
Sticker n°	Helmet Internal Id	Size		Initial (load 30N)	Max 40 [mm] (load 630N)	Final 15 [mm] (load 30N)
-	16-1851	YOUTH	Longitudinal	1	12	1
-	16-1852	YOUTH	Transversal	1	14	2

REFLECTIVE PARTS				
			Result	
Reference	Test		Pass or N/A	Fail
6.16.2	Reflective parts (Geometry requirements)		PASS	
6.16.3	Reflective parts (Colorimetric requirements)		PASS	
6.16.4	Reflective parts (Photometric requirements)		PASS	
6.16.5	Reflective parts (Resistance to external agents requirements)		PASS	
6.16.6	Reflective parts (Compatibility of materials requirements)		PASS	

THE SAMPLES TESTED MEET THE REQUIREMENTS OF THE REFERENCE NORM.

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Laboratory Manager
(Juan Pablo Cuesta)

