

HEADQUARTERS
PHILIPPINE ARMY
OFFICE OF THE ARMY QUARTERMASTER
Fort Andres Bonifacio, Metro Manila

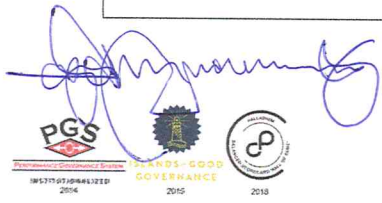
TEST PARAMETERS
PHILIPPINE ARMY BALLISTIC HELMET

Parameters	QM SPEC NR IE – 22PABH dated 06 September 2017 with Amend 1 dated 11 Feb 2019	Classification of Defects	
		Major	Minor
Basic Shell			
Weight, kg (maximum)	Small – 1.33 Medium – 1.38 Large – 1.5 X-Large – 1.75	X	
Design and Construction			
	Shall be Advance Combat Helmet design with full cut design and similar to the attached illustration.	X	
	The outer and inner surfaces of the shell, including the bottom edge, shall be finished smooth and even	X	
	Both the inside and outside surfaces of the shell shall be free from any hole, void, delamination, blister, cracking, crazing, and dry spot.	X	
	It shall include the hook disk at the inner surface of the shell.	X	
	The edge of the shell shall be finished with rubber trim.	X	
	The rubber trim in the shell shall have no damage and defect		X
Color	Olive Drab	X	
Protection	There shall be no penetration of ammunition as specified on para 2.3.1.2.2	X	
	When bolt shot is done, there shall be no penetration and the BTF shall not exceed 25mm as per para 2.3.1.2.4	X	
Fragment Protection	It shall be compliant with MIL STD 662F or STANAG 2920 (17 grain; .22 cal FSP; V50 – 720 m/s)	X	
Ballistic Transient Deformation (BTF)	It shall not exceed BTF on the required specification as specified in para 2.3.1.2.5 (Amend 1)	X	
Protection Coverage area	It shall be in accordance with para 2.3.1.2.11 (Amend 1)	X	
Dimension		X	
Sizes, cm	Small – 53 – 55 Medium – 55 – 57 Large – 57 – 59 X-Large – 59 – 61	X	
Flame Resistance	The flame shall self-extinguished within 5 seconds . There shall be no melting or dripping of the materials of the shell body.	X	
Compression Resistance	a) Lateral deformation \leq 40mm b) Residual lateral deformation \leq 15mm	X	

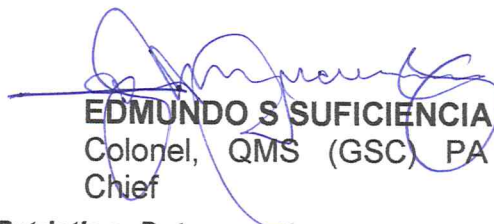
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Parameters	QM SPEC NR IE – 22PABH dated 06 September 2017 with Amend 1 dated 11 Feb 2019	Classification of Defects	
		Major	Minor
Seawater resistance	a) Increase in weight $\leq 3\%$ b) Increase in thickness $\leq 2.5\%$ c) No evidence of softening, peeling, blistering, cracking & delamination	X	
High Temperature	a) visually no degradation in shell and no degradation in paint b) Change in thickness $\leq 2.5\%$	X	
Cold Temperature	a) visually no degradation in shell and no degradation in paint b) Change in thickness $\leq 2.5\%$	X	
Blunt Impact Protection	a) Individual acceleration $\leq 150G$ b) No physical damage and indentation is ≤ 4 mm	X	
Retention Systems			
Design and Construction	It shall consist of 4-point chinstrap, nape pad and ratchet system and designed for one-handed operation.	X	
	The adjustment shall be in one direction.		X
	It shall have a provision for a quick release mechanism.	X	
	It shall have an Open Chin Cup and Side Release Buckle.	X	
	The attachment of retention system shall not require additional drill hole and bolt in order not to pose secondary hazard and maintain the ballistic integrity of the helmet.	X	
Chinstrap Anchorage, kg	25 - 40	X	
Webbing breaking strength, N	1000 (minimum)	X	
Color	Black	X	
Suspension Pad System			
Design and Construction	The Helmet shall utilize a multi-layered pad suspension system consisting of 7 pads (minimum).	X	
	The pads shall possess means of easy attachment, removal, and reattachment to the inside helmet shell. The pads shall remain firmly in place when attached.	X	
Durability	The pads shall be constructed such that they can withstand multiple compressions without failing.	X	
Water absorbency	The water absorbency shall not exceed more than 3%	X	
Moisture wicking	The inner material that contacts the wearer's head shall wick moisture away from the wearer's head and absorb.	X	
Hook disk and Fastener	The hook disk fastener attaching the suspension pad system shall be durable and shall meet the minimum shear strength and peel strength as para 2.3.3.2.4 (Amendment 1)	X	
NVG Mounting System			
Design and Construction	The shroud/mounting system shall fit any size of helmet	X	
	The attachment to the shell shall have a maximum of single bolt and shall not require any modification or additional drill holes.	X	

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	The bolt shall not pose secondary hazards/fragments to the user.	X	
	The bolt shall be rust resistant	X	
Color	Olive Drab	X	
Integration and Compatibility	The shroud shall be universal and fit to the existing NVG equipment of the Philippine Army (PVS – 7B and PVS – 14 Generation II and III) and shall provide a bracket/adaptor for A100 monocular NVG model	X	
	The NVG shall be well fitted with superior NVG stability and shall have no unnecessary movement/displacement when attached to the shroud and helmet.	X	
	The shroud shall be detachable and easy to fit	X	
Rail System	Shall consist of left and right rails that fits all sizes	X	
	Shall have entry points along upper and lower dovetails to enable multiple entry points that can accept widely used rail bases, such as swivel clips, picatinny and winged rail bases	X	
	It should also be able to accommodate clips for oxygen mask or gas mask	X	
	Shall allow for easy one handed attachment	X	
	The attachment of railing system shall not require additional drill hole	X	
	It shall match helmet shell curvature ensuring secure helmet mounting for accessory stability	X	
Color	Olive Drab	X	
Counter Weight System	Shall be provided with counterweight that will counter the weight of the NVG of the Philippine Army and other front mounted devices	X	
	Shall be detachable and can be removed by the user when not needed	X	
	Shall not use any additional drill holes in attaching the system	X	
	Shall not be attached primarily by a hook and loop tape. It shall be well fitted, stable and shall have no unnecessary displacement	X	
Ballistic Eyewear			
Design and Construction	The eyewear shall have high anti-fogging performance and scratch resistance.	X	
	The eyewear shall have a flexible strap end for custom fit either with the helmet or simply with the head or retention strap (for those design that do not have temple arms).	X	
	Shall be a spectacle type of eyewear (shade type)	X	
Carrying Case	Shall have a separate carrying case capable of carrying all components of an eyewear	X	



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Protection	Shall provide ballistic protection against shrapnel and fragments in accordance to any of the ballistic standard: STANAG 2920, MIL-PRF-32432 or MIL STD 662 with a minimum V50 of 150 m/s (5.8 gr/17 gr; .15 Cal/.22 Cal)	X	
	Shall provide at least UVA protection in accordance to MCEPS/MIL-PRF32432 or ANSI/ISEA-Z87.1-2010	X	
Helmet Cover			
Basic Material	Polyester		X
Type of Weave	Ripstop Design	X	
Abrasion Resistant	2000 (minimum)		X
Colorfastness Laundering (5 cycles)	4 (minimum)		X
	Daylight (Xenon Arc)	4 (minimum)	X
Design and Construction	The helmet shall be fitted with various cover corresponding to each sizes.	X	
	The helmet cover shall be securely in place on the helmet.	X	
	It shall cover the entire surface of the outer coverage area of the helmet.	X	
Color	PHILARPAT Design	X	
Label	It shall have a label	X	
Contents of the Label	It shall be in accordance with para 2.4.1 (Amendment 1)		X
Location of the label	The label shall adhere into the inner portion of the Ballistic Helmet	X	
Helmet Bag	It shall be provided with a helmet bag	X	
	The helmet bag shall have provision for Name tag placement		X
	The basic material of the helmet bag shall have the same basic material, color and design with the helmet cover.	X	
Other Requirements	Each set of Ballistic Helmet and Eyewear must be provided with a manual (or brochure) on the equipment's proper use and maintenance.	X	
	The manual/brochure shall be available in hard and e-copy		X
	There shall be an appropriate tool kit to be provided in detaching the NVG mounting system, if applicable.		X
	The ballistic helmet and eyewear must be brand new and never been used.	X	
	Minimum shelf life of the shell and all components shall be five years.	X	
TOTAL TEST POINTS		72	11


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