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Langhirano (PR) Italy, 01 june 2014

OBJ: **Helmet Producer Testing Declaration**

TEST RESULTS (A14G2TST)

NOTICE :

All tests have been carried out on LMT helmet type: **L size, Generation II (AVK)**

SHOCK ABSORPTION TESTS

These tests were carried out following the test protocol proposed by EN 966:2006 and ANSI Z90.1 *Impact Energy attenuation* (cl. 10.1), that meet or exceeds the MIL-DTL-87174/A (USAF) which requires a blow of 47,5 J without redoubling. The maximum acceptable acceleration is 400g with acceleration greater than 200g not exceeding 3 ms and acceleration greater than 150g not exceeding 6 ms.

The helmet meet or exceed all above requirements.
Test report (07th of Aug. 2012 and 02th of Feb. 2014), from Italian laboratory CSI, can be shown on request.

PENETRATION RESISTANCE TESTS

These tests were carried out in accordance with EN 966:2012 Resistance to penetration (cl. 6.2.2 – 7.3), EN 443:2008 Resistance to penetration (cl. 4.3) and EN 12492:2012 Resistance to penetration (cl. 4.2.2)

these exceed the MIL-DTL-87174/A (USAF) standard with a requirement of 13,5 J and a validation condition which does not permit the point to come into contact with the dummy head.

The helmet meets above requirements.
Test report (07th of August 2012, 02th Aug. 2013 and 02th of Feb. 2014), from Italian laboratory CSI, can be shown on request.

VALIDATION OF THE SCREENS (Gen II Visors) QUALITIES

The thermoformed screen - validated with inner clear, dark and amber screens - meet or exceed the EN 166 : 2004 standard for eye protection and MIL-DTL-87174/A (4.5.10)

- Optical test method: EN 167:2003
- Non Optical Test Method: EN 168:2003
- Optical test in conformance of MIL-V-43511C (gen II visors)

The laboratory's reports could be shown on request.

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ACOUSTIC INSULATION MEASUREMENT

The measurements were carried out by the internal producer lab

The attenuation levels obtained with pick noise at 104 dB_A in helmet with PNR standard (basic plastic thermoformed ear cups) configuration are as follows:

Frequency	125	250	500	1000	3000	4000	6300	8000	13000
Attenuation	15	10	15	23	37	38	46	32	37

The test report dated 16 may 2012 can be shown on request.

WEARING GLASSES

In accordance with the EN 966:2006 standard a check was made that wearing glasses was compatible with the operation of the helmet. The test was carried out with a large size helmet and a pair of average enveloping glasses: it was observed that the screens retain their original kinematics.

The helmet is thus validated for wearing glasses, subject to glasses of reasonable dimensions being worn.

RESISTANCE TO PULLING OFF

Insofar as the helmet has no post-cranial strap, it is appropriate to carry out a test of resistance to coming off so as to guarantee this option.

The tests were carried out in accordance with the EN 966:2006 standard. The helmet is subject to a traction force applied to the back of the dome in the helmet's vertical median plane and directed at an inclination of 45° to the top and to the front. The conditions for validation are that the helmet should not separate from the dummy head and that after the test the angle formed by the reference line at the top of the helmet and by the reference plane of the dummy head should not exceed 30°.

The helmet meets above requirements

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RETENTION SYSTEM RESISTANCE

The tests were carried out in accordance with the EN 966:2012 standard and USAARL recommendations.

The dynamic stretching should not exceed 35 mm and the residual stretching should not be greater than 25 mm. After the test, the retention system should still enable the helmet to be removed from the dummy head by using opening device in the normal way.

The chinstrap has to resist to a load of 1956N for minimum 30s and the residual stretching should not be greater than 25mm. The helmet should not turn out of the head form

The helmet meets above requirements.

LMT Helicopter Crew Helmet		
Visor Lens	Impact resistant 2 mm polycarbonate, inner dual visor, dark and clear, amber, high contrast or special lenses as optional, coated in conformance to MIL–C–83409	
Shell Composite	Carbon fiber, aramidic, Vectran®, Polyethylene	
Liner System	pre-formed thermoplastic EPS liner and gel tape	
Weight (without communications)	Small Size: 0.7 kg	Large Size: 1.0 Kg
Chin Strap	Quick release and fine adjustable buckle tested in conformance with EN966:2012	
Sound Attenuation	23 dB @ 1,000 Hz, 46 @ 6,300 Hz (standard PNR)	
Impact Decelerations	meet or excedees the EN 966:2006 technical standard (Crown 141,6g @ 17.8 fps) and ANSI Z90.1 *Impact Energy attenuation* (cl. 10.1) (Rear 139,9 @ 19.72 fps; Crown 90,4g @ 16.17 fps...)	
Perforation Resistence	meet or excedees the EN 966:2012, EN443:2008 and EN12492:2012 technical standard	
Sizing	Small: 21 1/4" - 22 5/8" (54-58 cm) Large: 23" - 25 1/4" (59-64 cm)	

President

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