	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/04.015 Version 01

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Question related to	☐ PPE Regulation	☒ EN/prEN: 352-4:2001/13819-2:2002	☒ Other: ISO 4869-4
Article:	Annex:	Clause: ... / 4.3.3	

Key words:

Level-dependent earmuffs, MIRE, measurement noise, volume control

Question:

1 Which test method should be used for the testing? Should MIRE (microphone in real ear) or HATS (head and torso simulator) or ATF (acoustic test fixture) technique be used?

2 Which tolerances shall be aimed at for the generation of the L-orientated, M- , and H-orientated noise described in EN 352-4?

3 Which adjustment of the volume control shall be used for the testing of the level-dependent function of the earmuff?

Solution:

1 The MIRE-technique as described in Annex B of EN 352-4:2001 should be used. In the area of the concha, the microphone, including supporting elements and electrical leads, shall occupy an area not exceeding 25 mm² in the plane perpendicular towards the centre axis of the ear canal (this differs from EN ISO 11904-1). The microphone position shown in Figure 1 a) of EN ISO 11904-1:2002 shall be used, i.e. open ear canal and the port of the microphone shows towards the ear drum and the position is in between the ear canal entrance and the ear drum, preferably near by the ear canal entrance in a distance of a few mm.

2 M-noise: L_C-L_A = (+ 2 ± 0,2) dB; H-orientated noise: L_C-L_A = $-1.2^{+0.1}_{-0.2}$ dB; L-orientated noise: L_C – L_A = $+6^{+0.4}_{-0.2}$ dB. Measure in one-third-octave bands and calculate the L_C – L_A value.

3 Adjust to maximum volume.