

Laboratory Test Report

Date: 27-July-05

Test Report No. T-0775

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ANSI S3.19/S12.6 Testing - Self-Expansive Earplugs and Self-Expansive Earplugs with cord

Performed For: Steelpro Safety Equipment Co.

- 1.0 **Test Articles** – Self-Expansive Earplugs and Self-Expansive Earplugs with cord
- 2.0 **Applicable Specifications** – ANSI S3.19 and ANSI S12.6
- 3.0 **Test Results** – The results of the hearing protector acoustical tests and the Noise Reduction Rating (NRR) calculations are shown in Table 3.1. In accordance with 40CFR PART 211 – Product Noise Labeling, "Spectral uncertainty. Possible variation in exposure to the noise spectra in the workplace. (To avoid the under protection that would result from these variations relative to the assumed "Pink Noise" used to determine the NRR, an extra three decibel reduction is included when computing the NRR.)" The NRR rating in accordance with 40CFR211 is shown in Table 3.1.

Table 3.1: FEP-03 and FEP-03C Ear Plug NRR Calculation Worksheet

1/3 octave centerband frequency	Measured 1/3-octave Data			Exterior to Earmuff		A-weighted Sound Levels in Earmuff
	Sound levels exterior to Earmuff	Average Earmuff Attenuation	Standard Deviation of Attenuation	C-weighted Sound Levels	A-weighted Sound Levels	
63	85	34.4	6.6	84.2	58.8	31.0
125	85	38.1	9.8	84.8	68.9	40.6
250	85	37.9	12.6	85.0	76.4	51.1
500	85	39.6	13.0	85.0	81.8	55.2
1000	85	37.7	8.3	85.0	85.0	55.6
2000	85	37.3	6.9	84.8	86.2	55.8
4000	85	48.4	10.2	84.2	86.0	47.8
8000	85	45.9	9.1	82.0	83.9	47.1

Overall C Weighted Level = 93.5
Overall A Weighted Level = 61.2
Ear Plug NRR Value = 32

Table 3.2: FEP-03 and FEP-03C Ear Plug Mean Attenuation Levels

Frequency	63	125	250	500	1000	2000	4000	8000
Mean Attenuation	34.4	38.1	37.9	39.6	37.7	37.3	48.4	45.9
Standard Deviation	3.3	4.9	6.3	6.5	4.2	3.5	5.1	4.5