


DOC NO 03.05	ISSUE 0	REVISION 00	DATE 15.05.07	QUALITY PLAN
PRODUCT : EAR PLUGS			APPROVED BY :	
REF NO : EP 02 (Disposable PU Foam Ear Plug			CORDED) PRESIDENT (TECHNICAL)	

CONFORMING TO EN 352-2: 2002



SL. NO.	FEATURE (Tests carried out)	TESTING PROCEDURE	FINDINGS
1)	Plug Material Cord	Does not cause Skin Irritation, Skin Disorders, Allergic Reactions nor any other adverse effects to health. When in contact with sweat, ear wax or other material likely to be found in the ear canal, the material does not undergo any changes.	Made of soft Polyurethane. Disposable Red coloured cord made of PVC material
2)	Construction	Vital points covered are-: 1) Does not cause any physical damage to the wearer when fitted. 2) Ear plugs can be readily and completely removed from the ear canal by the user without the use of tools or instruments.	Conforms to EN-352-2:2002
3)	Assessment of nominal size designation	Assessed by Gauge, consisting of a flat rigid plate, with thickness of 5 mm +/- 0.5mm, enclosing ten circular holes of various diameters. NOMINAL SIZE DESIGNATIONS OF EAR PLUG NORMAL SIZE DESIGNATION DIAMETER OF HOLE IN GAUGE 5 5 6 6	Fit for all sizes

		<p>7 8 9 10 11 12 13 14</p> <p>7 8 9 10 11 12 13 14</p> <p>First it is inserted into the smallest hole in the gauge in to which the appropriate parts of the ear plug enters and make circumferential contact without the deformation of the geometrical configuration of the ear plug being such as to impair its sealing function. Then inserted in all the holes, to find the largest hole in the gauge in which the appropriate parts of the ear plug Will make continuous circumferential contact.</p>	Fit for all sizes																											
4)	Ignitability	Ear plugs should not ignite nor continue to glow after the removal of heating rod. Tested with steel rod heated to the temperature of 650 deg C +/- 20 deg C for a period 5 seconds +/- 0.5 seconds. Thermocouple temperature measuring device is used.	Two Samples Tested .When tested, they Conform to EN 352-2:2002																											
5)	Minimum Attenuation	<p>The Sound Attenuation of the ear plug is measured and presented in accordance with EN-24869-1 (Mean Value & Standard Deviations). For this test each Human are supplied with a separate pair of ear plug of appropriate size.</p> <table border="1"> <thead> <tr> <th>FREQ.</th> <th>DATA REQ. ATTENUATION (Hz)</th> <th>Achieved Attenuation (Hz)</th> </tr> </thead> <tbody> <tr> <td>63</td> <td>-</td> <td>31.1</td> </tr> <tr> <td>125</td> <td>5</td> <td>33.2</td> </tr> <tr> <td>250</td> <td>8</td> <td>31.6</td> </tr> <tr> <td>500</td> <td>10</td> <td>33.1</td> </tr> <tr> <td>1000</td> <td>12</td> <td>33.5</td> </tr> <tr> <td>2000</td> <td>12</td> <td>33.8</td> </tr> <tr> <td>4000</td> <td>12</td> <td>43.3</td> </tr> <tr> <td>8000</td> <td>12</td> <td>41.4</td> </tr> </tbody> </table>	FREQ.	DATA REQ. ATTENUATION (Hz)	Achieved Attenuation (Hz)	63	-	31.1	125	5	33.2	250	8	31.6	500	10	33.1	1000	12	33.5	2000	12	33.8	4000	12	43.3	8000	12	41.4	Conforms to Norms
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6)	Drop Test	Samples are examined for Drop test to determine whether there was any effect that would lead to alteration in the properties of the earplugs as regards compliance with “Minimum Attenuation	Conforms to Norms																											
7)	Testing- Specimens	Ear Plugs are submitted for testing in the condition in which they are used by the user.	16 test subjects comprised both male and female and covered a wide age range.																											
8)	Testing - Conditioning	All specimens are conditioned for more than 4 hour and tested in an atmosphere having a temperature of 22 deg C +/- 5 deg C and a relative humidity of not more than	50 specimens were supplied by the Laboratory for																											

		85%.	testing
9)	Testing- Procedure	1) Unpack all Ear plugs completely. 2) Conditioned for more than 4 hours-(Row-8) 3) Weigh all the plugs to calculate the mean mass of 1 plug. 4) Check one pair for material-(Row-1) 5) Check one pair for construction-(Row-2) 6) Check for Nominal Size.-(Row-3) 7) Check for Ignitability.-(Row-4) 8) Check specimens for Sound Attenuation.-(Row-5)	As per EN 352-2: 2002
10)	SNR	37	Pass
11)	H-,M-and L- Value	H = 36 , M = 34 , L = 33	Pass
12)	Available Color	Yellow-Green	
13)	Packing	1 pair/Zipper polybag-200 pairs,10,000 pairs, in 1 cn./Duplex paper Pouch/Dispenser carton of 200 pairs	