



**PRODUCT NUMBER: 1012722**  
**Matrix GREEN LS-500 Refill**

[Learn more about our products at howardleight.com](http://howardleight.com)

>

[Learn more about hearing conservation at hearforever.org](http://hearforever.org) >



**Overview**

**Reference Number**

1012722

**Product Type**

Hearing Protection

**Range**

Earplugs

**Line**

Disposable Earplugs

**Brand**

Howard Leight by Honeywell

**Industry**

- Industry
- Administration
- Agriculture
- Army - Defence
- ATEX environment
- Automotive and Part Manufacturer
- Aviation
- Building and Construction
- Catering
- Chemical Industries
- Energy or Electricity
- Fire Protection brigades
- Fishing
- Food Industries
- Foundry
- Glass Industries
- Green Spaces
- Homeland defense
- Industrial Cleaning
- Iron and steel industry
- Laboratory
- Logistics
- Maintenance
- Medical and Pharmaceutical
- Metal steel
- Mining and Quarrying
- Offshore
- Paper Industries
- Petro-chemical
- Printing Industries
- Services
- Ship Building
- Telecoms
- Textile Industries
- Transportation
- Utilities
- Water treatment
- Welding
- Wood Industries

**Product Use**

Matrix Green LS-500 Dispenser Refill, Dispenser

**Features & Benefits**

**Feature**

PATENTED NO-ROLL DESIGN Insertion is fast and easy, delivering instant protection upon proper insertion. SOUND MANAGEMENT Uniform attenuation profile blocks loud noise while voice and other higher frequencies can be heard more naturally. SMALLER DIAMETER Eliminates that "plugged up" feeling in your ear canal. SMOOTH OUTER SKIN Thermoplastic Elastomer (TPE) is a great match for the sensitive skin inside your ear canal, delivers long-term comfort.

**Benefit**

We made the diameter smaller, but packed in more innovation. The result is the patented Matrix, a triumph of hearing protection technology. It promises enhanced communication, safety and compliance. And forget rolling forever. Insertion is fast, and protection is instant upon proper insertion. A revolutionary, super-soft outer skin ensures comfort, and low-pressure foam does away with that plugged-up feeling.

## Technical Description

### SNR (dB)

27

### H (dB)

29

### M (dB)

23

### L (dB)

21

### Attenuation Data

Frequency (Hz) Frequenz (Hz) Fréquence (Hz)	63	125	250	500	1000	2000	4000	8000
Mean Attenuation (dB) Mittlere Dämmung (dB) Atténuation moyenne (dB)	17.4	20.8	24.5	27.3	27.8	33.9	36.9	40.8
Standard Deviation (dB) Standardabweichung (dB) Déviation standard (dB)	5.4	5.5	6.7	6.5	4.9	3.6	4.3	6.5
Assumed Protection (dB) Angenommener (dB) Protection supposée (dB)	12.0	15.3	17.8	20.8	22.9	30.3	32.6	34.3

### Size

Fits All

### Color

Green

### Shape

Cylinder

### Corded

No

### Weight (grs)

0.39

## Certifications

 E.C. Declaration of Conformity

### EC Category PPE

2

### Quality Assurance

ISO 9001 / 2000

### EC Certificate Number

EC1161

### EC Attestation

 EC Attestation

### EC Attestation Number

031051

## Literature & Documents

 PIC SKU - Pictures

<http://www.honeywellsafety.com/assets/0/324/500/51887/6f7dd7bef21f47f1808bdb10fe4572b3.jpg>

## Additional Information

### User Manual

Instruction Manual - Matrix (global)

## Maintenance

### Life Cycle

These plugs must be disposed of and replaced after each wearing.

### Storage Information

All earplugs should be stored before and between usages in a way that protects them from dirt, grease, and other contaminants.

### Care Instructions

Disposable earplugs are made of either TPE (Thermoplastic elastomers) or polyurethane foam. Washing and cleaning of disposable earplugs are not recommended. These plugs must be disposed of and replaced after each wearing. Excessive moisture reduces the attenuation and slows down the foam recovery which may lead to improper fit.

## Packaging

### EAN Code

033552013525



## EC TYPE-EXAMINATION CERTIFICATE: 1161


**Product description: -** Hearing Protection - Disposable Ear-Plugs

**Product identification: -** MATRIX/Green Foam - corded and uncorded  
MATRIX/Orange Foam - corded and uncorded  
MATRIX/Blue Foam - corded and uncorded  
Sizes 9 and 10

**Manufacturer: -** Sperian Hearing Protection LLC  
7828 Waterville Road  
San Diego  
CA 92154  
USA

When assessed and examined against harmonised standard EN352-2:2002 are found to be in conformity with Council Directive 89/686/EEC and associated amendments, relating to personal protective equipment.

**Authorised EU Representative: -** Sperian Protection Europe  
Immeuble Edison - ZI Paris Nord II  
33 Rue des Vanesses, BP55288  
95958 Roissy CDG Cedex  
France

Signed .....  Date: 23rd October 2003

K J Warren, Manager, Certification Services

For and on behalf of INSPEC International Ltd.  
56 Leslie Hough Way, Salford, Gt Manchester M6 6AJ  
England (Notified Body No: 0194)

certificate invalid  
if not embossed

For terms and conditions of issue, see page 2



## Terms and Conditions

### Reference Documents: -

- |      |                          |   |  |
|------|--------------------------|---|--|
| i)   | Test Reports             | - | INSPEC 03.10.51, 04.07.68, 04.12.59                                |
| ii)  | Technical File           | - | TF/1161  |
| iii) | Test and Inspection Plan | - | Howard Leight Industries Test and Inspection Plan dated 10/13/2004 |

### Conditions attached to the issue of this certificate:

- i) Marking and instructions have been assessed in the English language only. It is the Manufacturers/Authorised Representatives responsibility to obtain and supply language versions acceptable to the country where the product is to be sold.
- ii) Any changes to the product, technical file or quality manual/quality plan shall be immediately notified to INSPEC.
- iii) The Manufacturer/Authorised Representative shall comply at all times with INSPEC's Regulations governing CE Product Certification.
- iv) This Certificate remains the property of INSPEC and may be withdrawn if any of the conditions attached to its issue are not complied with.





# CERTIFICATION INDEX

Item	Status	Issued	Amendment
Page 1 of 2	Withdrawn		
Page 2 of 2	Withdrawn		
Page 2 of 2 (Amendment ONE)	Withdrawn	12/8/04	To add test report 04.07.68
Page 1 of 2 (Amendment ONE)	Withdrawn	12/8/04	To add model MATRIX Blue
Page 2 of 2 (Amendment TWO)	Withdrawn	12/1/05	To add test report 04.12.59
Page 2 of 2 (Amendment TWO)	Valid	02/07/08	Name change to SPERIAN





## E.C. Declaration of Conformity

**The manufacturer or its legal representative supplier in the European Community:**

Honeywell Safety Products Europe

**Declares that the Personal Protective Equipment described here after conforms to the provisions of the European Council Directive 89/686/CEE:**

Designation: Matrix GREEN LS-500 Refill

Reference: 1012722

Standard(s): EN 352-2:2002

**This PPE is the object of the below EC examination certificate n°:**

EC1161

**Delivered by:**

INSPEC

56 Leslie Hough Way

Salford

M6 6AJ

Greater Manchester

United Kingdom

+44 (0)12 96 68 29 66

Drawn up in France, on the 20/05/2016

**By:**

**Division:** Hearing Protection

ZI Paris Nord II 33, rue des Vanesses BP 50288 95958 Roissy CDG France

Tel: +33 (0) 49 90 79 79 Fax: +33 (0)1 49 90 79 80

[www.honeywellsafety.com](http://www.honeywellsafety.com)

HOWARD  
LEIGHT



By Howard



**MATRIX**

How to use the MATRIX dispenser:  
1. Turn the dispenser on by pressing the button on the right side.  
2. The capsules will be dispensed into the container below.  
3. When the container is full, turn the dispenser off.  
4. Remove the container and empty it.  
5. Repeat the process as needed.

HOWARD  
LEIGHT



By Howard

**SAMPLE DISPENSER**



HOWARD  
LEIGHT

By Howard