

## Why is zinc-air technology used in hearing aids?

The battery capacity is greater than any other battery with the same design. In addition, zinc-air batteries are especially suitable for high currents; therefore they meet the needs of hearing aids perfectly.

### Construction of a zinc-air battery



## Can I use my Renata zinc-air battery in both analog and digital hearing aids ?

Yes you can. Engineers have developed our zinc-air batteries over a period of many years so that the latest generation of Renata batteries is ideally suited to both technologies.

### How should I store my zinc-air battery?

Ideally a zinc-air battery should be stored at room temperature in the original package. Storage in a very dry or humid climate (e.g. exposed to direct sunlight) or in a cold place (e.g. in a refrigerator) may significantly shorten the battery service life. Batteries should not be allowed to come into contact with metal pieces (such as coins or keys), as this may create a shortcircuit.

#### What points should I bear in mind when my zinc-air battery is fitted in the hearing aid ?

Oxygen from the surrounding air reacts with the zinc to supply the required current. In its original pack, the battery is sealed with adhesive tab which protects it against environmental influences. In this condition, very little oxygen is present in the battery. Its voltage is therefore reduced. After removal of the tab, oxygen enters the battery and the voltage rises to more than 1.4V (open circuit voltage). Wait for 1 to 2 minutes after removal of the adhesive tab before placing the battery in the hearing aid.

#### What is the voltage of my battery?

An activated zinc-air battery which is not under load has a voltage of more than 1.4V, the operating voltage is slightly lower than this. If the voltage falls below 1.1V in a digital hearing aid, an alarm sounds or the device switches itself off.

# Do more air holes mean a longer battery life and greater power?

No. The quality and design of the air electrode are the decisive factors.

#### How long will my battery last?

In principle, Renata batteries are typified by a broad spectrum of use and a long service life. However, the service life of a zinc-air battery depends on different factors such as the type of hearing aid, the chosen amplification, the surrounding noise level and climatic conditions such as temperature or atmospheric humidity.



# Are battery testers suitable for zinc-air batteries ?

In zinc-air batteries, the voltage remains constant through the period of use and the state of discharge therefore cannot be determined by measuring the voltage. Conventional battery testers are not suitable.

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