

What's instant ? **Instant is a battery**

Ready to Use - Long Shelf Life - Universal

instant is a totally new type of battery, which satisfies in a unique way the needs and expectations of the consumers.



Benefits of instant

Instant is a combination of a rechargeable and a disposable battery, the next evolutionary step for batteries into the 21st century.

- Immediate use
- Low self-discharge
- Environment protection
- Universal application
- Higher performance
- Recyclable package

The needs of the consumers

Consumers would like to have a battery, which

- Can be used right after the purchase
- Has a long shelf life with no loss of energy
- Is cheap in purchase and usage
- Is easy to use
- Has a high performance
- Can be used everywhere
- Is environmental friendly

Spoilt for choice

So far these requirements could not be satisfied by a single type of batteries. The consumer had the choice between disposable batteries or rechargeable batteries.

Disposable batteries have several advantages :

- They can be used immediately
- They are rather cheap in purchase
- They have a long shelf life with low loss of energy
- They are easy to use and no charger is required

These advantages however, had to be seen alongside several clear disadvantages. Disposable batteries

- Can be used only once and therefore mean substantial waste and risk for the environment.
- Have to be purchased over and over again and are therefore expensive considering the life-time of your equipment.
- Are not quite powerful enough in certain applications (like digital cameras)
- Are being offered in many varieties and special application-specific types, which confuses the consumer.

The classical advantages of rechargeable batteries are:

- High performance, especially if high discharge currents are required (like in digital cameras)
- Cheap in use, because they can be recharged many times.
- Environmentally friendly, because one rechargeable battery replaces 1,000 disposable batteries.
- Good performance at low temperatures.

Given these advantages, there are however also some disadvantages, which made consumers reluctant to exchange disposable batteries by rechargeable batteries.

- After purchase, rechargeable batteries have to be charged before they can be used.
- Rechargeable batteries loose the stored energy rather fast.
- The state of charge is hard to determine.
- Continuous charging or frequent charge (without complete discharge) can destroy the battery.
- Proper charging is complicated for an average consumer
- The charging takes quite long and rapid chargers are expensive.

NiMH Battery

Charger

Racing Battery

Instant

All these negative attributes have one root-cause: self discharge.

Self-discharge means, that a charged battery slowly discharges itself without any equipment consuming any current.

This is the reason for rechargeable batteries being sold in discharged state. And this is the reason for that keeping charged batteries for some time did not make any sense. When you needed then, the energy was gone.

Instant--Immediate Use

like a disposable battery

Because the instant has a very low self-discharge, VapexTech can ship the batteries to the retailers in a charged state. Also in the shops instant loses it's charge very slowly.

This means the consumer purchases a charged battery, which can be used immediately.

Instant Specification

Name	instant	
Product	AA Ni-MH Battery	AAA Ni-MH Battery
Model No.	IN2100AA	IN850AAA
Nominal Voltage	1.2V	1.2V
Nominal Capacity	2100mAh	850mAh
Rated Capacity	2000mAh	800mAh
Diameter / Height	14.35mm / 50.50mm	10.5mm / 44.50mm
Weight	Approx. 27g	Approx. 13g
After 6 months of Storage	About 80% of Capacity	
After 1 year of Storage	About 70% of Capacity	

