



Industrial Batteries (UK) Limited

Main distributor of Alcad Ni-Cd Batteries in the UK
and suppliers of Battery Support Services

Industrial Batteries (UK) Limited
Greenlands Business Centre
Studley Road

Redditch, Worcestershire, B98 7HD

Tel: 01527 520052 Fax: 01527 520053

E-mail: sales@ibluk.co.uk

Web: www.ibluk.co.uk

Achieving the Optimum Life from your Battery

A battery is an important investment from both security and financial standpoints.

- The purpose of having a battery back-up system is to provide security and in the event of mains power failure the battery must work. There is no point in having a battery which fails to work as this is a false security.
- A battery system is a substantial investment and the best working life is required if the lowest life cycle cost is to be obtained.

These attributes are important to the user and in order to achieve them the battery should be correctly maintained and, when it reaches its end of life, correctly recycled. This is not difficult to achieve if certain precautions are taken.



Application Conditions.

The application conditions have a significant impact on the lifetime of the battery. This is a particular problem if the conditions have not been considered when the original specification was drawn up and the principle factors affecting the life of the battery are:

- The technology: Different battery technologies have different expected lifetimes.
- The temperature: high temperatures reduce battery life, particularly with lead acid batteries where each 10°C above ambient reduces lifetime by 50%.
- The number and depth of cycles required: Some batteries are not designed for deep cycling and cannot recover from this. This is not a significant problem for Ni-Cd batteries.
- The ruggedness of the battery: How well will it tolerate ripple, overcharge, over-discharge etc.

The main point to be made here is that an understanding of the battery and application is important in maintaining a good life.

Correct Maintenance.

All products give their best life if well maintained and all manufacturers produce recommended maintenance documents. It is important to follow these as closely as possible as there is no such thing as a maintenance free battery.

Maintenance includes activities such as:

- check charge voltage settings, cell voltages and float current of the battery
- check electrolyte level
- clean cell lids and battery areas
- check torque values, grease terminals and connectors
- capacity check as required
- top-up with water according to defined period (depend on float voltage, cycles and temperature).

Correct Maintenance (cont).

It is also useful for batteries which are in long term service to carry out a capacity check every 5 years or so.

In the case of Valve Regulated Lead Acid (VRLA) cells water additions are not possible. This means that monitoring of the battery is more critical than with flooded cells as battery condition cannot be evaluated visually or by an electrolyte analysis.

Battery Refurbishment or Replacement

Even if a battery is correctly maintained and used under ideal conditions, there comes a time when it should be replaced. However, at this point a number of options need to be considered:

- Does it really need replacing or can its life be increased by actions such as replacing electrolyte and/or re-commissioning?
- Can its life be extended by only replacing faulty cells?
- Can the replacement cost be reduced by using existing stands and accessories.
- Is the most cost effective solution to replace the battery completely?



Answers to these question are reliant on many factors and require expert advice.

Battery Disposal and Recycling

When an industrial nickel-cadmium battery reaches the end of its long service life it must be disposed of in accordance with UK and European legislation requirements. It is important to remember that this is a legal requirement for all nickel-cadmium and lead acid rechargeable batteries and they cannot be discarded as harmless waste. If you intend to handle spent batteries you should familiarise yourself with current regulations governing reportable storage quantities, allowable storage periods and transport requirements to a licensed UK collection point.

How can IBLUK help you?

Industrial Batteries (UK) Limited - IBLUK - are a UK company specialising in premium quality industrial nickel-cadmium batteries and support. In addition to being the main distributor of Alcad Batteries in the UK and supplier of the full range of Saft Industrial Batteries, it also offers an extensive selection of approved accessories and post and presale services.

These include:

- A full range of **maintenance** accessories and documentation to assist you in maintaining the batteries we supply to the required standard and, if you wish to have your maintenance carried out by our service provider, we can arrange this for you.
- A **design analysis service** to ensure that you choose the right battery for you application and a battery survey service to evaluate your present system.
- A one-day **training course** for personnel involved with industrial battery installations and systems. This in-depth nickel cadmium battery course is designed for those with limited knowledge of the product and for those who wish to improve their knowledge.
- A **battery disposal and recycling** service to customers on a consultancy basis to support and guide you through the practicalities of the regulations.

Please contact us directly by e-mail or telephone or visit our web site www.ibluk.co.uk for further information.

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