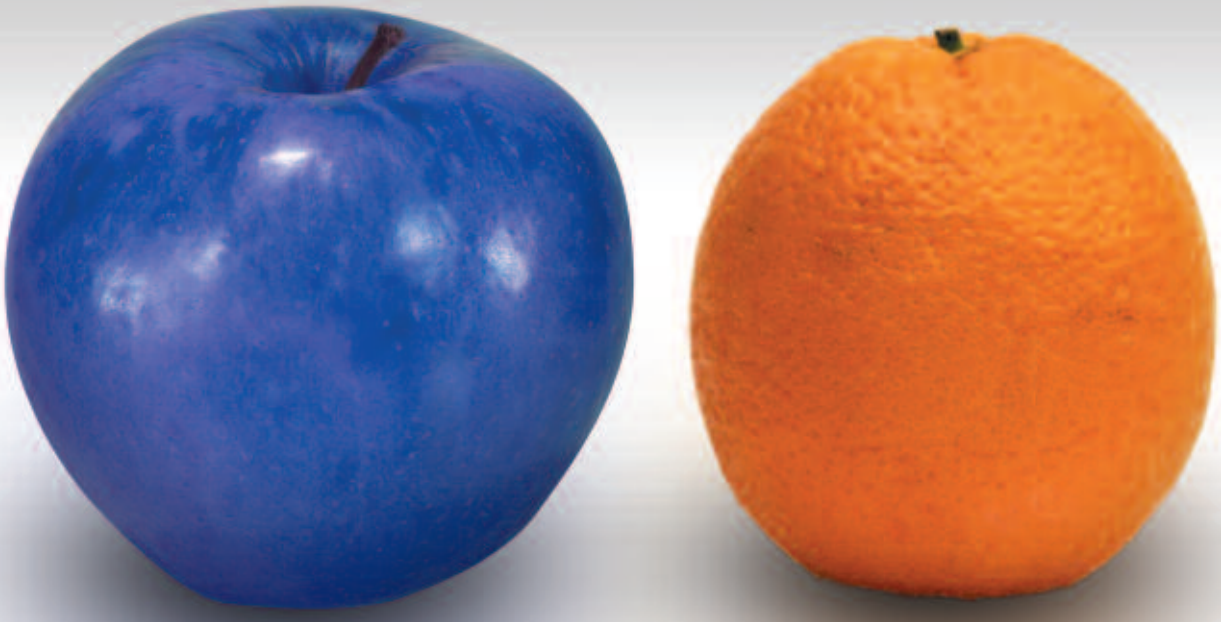
Sonnenschein

You cannot compare EXIDE with Oranges!



Original dryfit gel batteries
from EXIDE Technologies.

EXIDE TECHNOLOGIES
INDUSTRIAL ENERGY

Superior with proven gel technology.

Lowest price - Highest cost ?

Malfunction and failure cause unexpected costs. In industrial use for cleaning machines or material handling equipment, as well as in the wheelchair and leisure market – a breakdown is not acceptable. It affects your costs and your security.

If these are the crucial arguments for your application, then you should trust the proven dryfit technology. Sonnenschein gel batteries of the GF-V and GF-Y series are extremely safe, durable and of utmost reliability.

Clear advantages

For gel batteries we differentiate between the varying applications and manufacture specifically for stand-by applications and for cyclic usage. Other manufacturers manufacture only one product for all applications.

We offer two strong block products for cyclic use, from 450 to 750 cycles.

We guarantee what's inside the battery. It goes without saying that what is on the label, is what is inside the product.

Product properties

- **VRLA gel technology**
- **High cycle lifetime**
- **Low self discharge**
- **High shelf life**
- **Leak proof**
- **Proof against deep discharge**

Characteristics and advantages

- Minimum losses
  thus more reliability
- High lifetime
  thus cost saving

The dryfit-technology – a development of EXIDE Technologies.

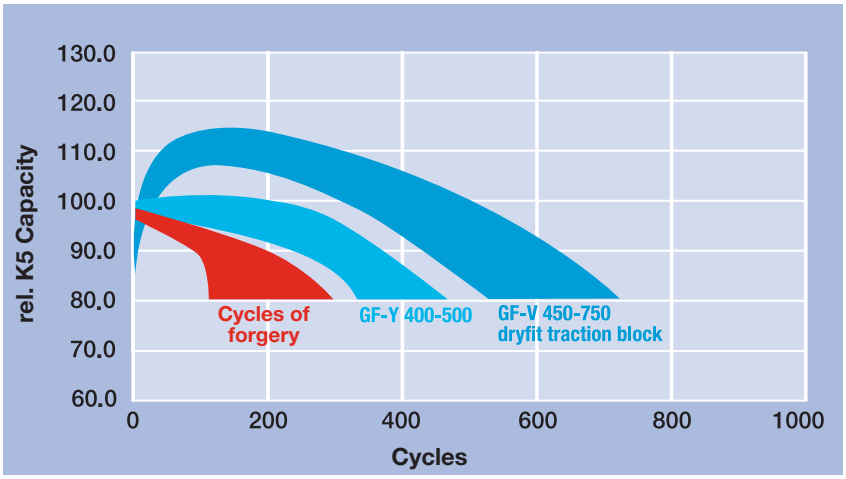
The invention of the "gel" is a patent of the former Sonnenschein Akkumulatorenfabrik, which merged into the EXIDE group of companies. Almost 50 years of experience and constant enhancement as well as quality optimisation qualify EXIDE as a competent partner in the battery business.

Quality – Made in Germany

Trendsetting German know-how and manufacturing.

See, understand, comprehend.

Sonnenschein Gel (dryfit-technology) – the durable solution



This curve shows the typical cycle behaviour of batteries of the GF-V and GF-Y series compared with gel forgeries of competitors. Asian manufacturers' data refers to a 20 hour discharge time with smaller currents.

Your costs – your security

At first sight a competitor's product seems to be "clearly cheaper". Viewing operating efficiency based on the individual components is insufficient. A macroeconomic perspective is needed to evaluate all relevant factors.

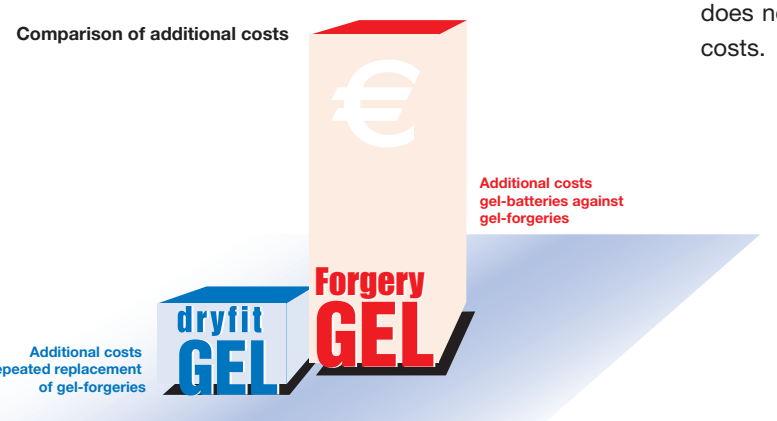
Additionally operating costs, cycle lifetime, service costs, repair and increasingly the energy costs are factors which have to be considered. A closer inspection of the cost factors, which accumulate over the period of operation of a battery, result in a clearer picture.

The higher quality and lower maintenance of the battery system, the lower the consequential costs.

- **Initial costs:**
  All operational resources such as battery, battery charger, periphery

- **Operating cost:**
  Maintenance, replacement costs, energy costs

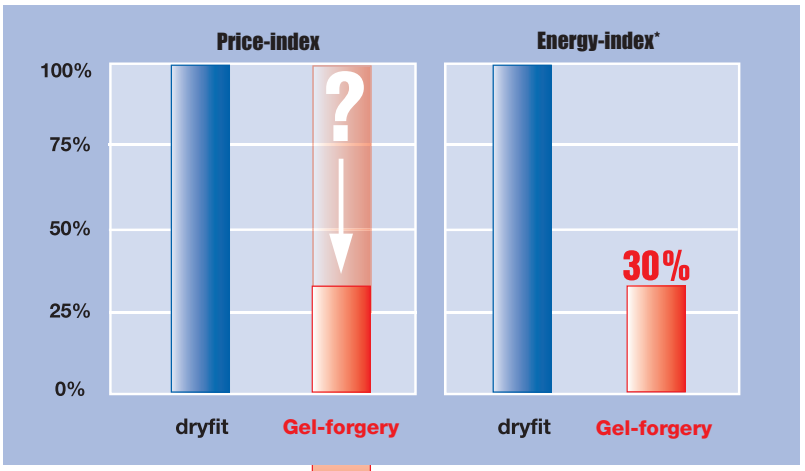
Depending upon product technology and quality the initial costs range between 20% and 50% of the total costs, therefore a higher initial cost does not inevitably mean higher total costs.



Fundamentally crucial: High cycle lifetime

High cycle lifetime, high energy density, proof against deep discharge and low maintenance of Sonnenschein dryfit batteries are ideal premises for use where time is money and limited space prevails – as required by users and customers.

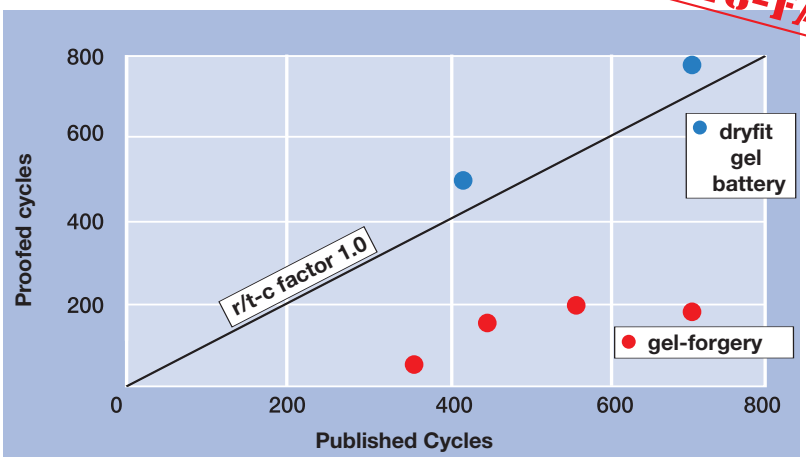
What is a fair price for a gel-forgery?



For a competition gel battery with the same capacity the customer should not pay more than 30% of the EXIDE price!

** In the comparison with so far the best tested gel battery (approx. 200 cycles according to EN 254-1) results a difference in energy availability to Sonnenschein dryfit gel battery of over 300%.*

Don't believe everything you read – Published versus proven cycles



Where there is GEL on the label, it is not always gel inside.

When reliability, performance and efficiency play a decisive role.

Some years ago a battery invasion of AGM technology, with moderate quality, from China took place. Whilst the product quality of these imported goods is quite acceptable, for cyclic applications they can still fall short of life expectations.

The exaggerated lifetime data of the imported batteries could never be achieved in daily usage. Due to this experience the traction market is extremely reserved concerning the Asian cycling batteries with AGM technology.

Now the next invasion is at hand. A rising number of “gel” batteries from the Asian area are emerging on to the European market. The inventiveness is great: from simply relabelled AGM batteries up to genuine gel batteries with very bad quality.

Falsified test seals, failed examinations at product tests or leaking housings – cheap batteries emerge again and again as dangerous scrap. A smorgasbord of test marks claim high quality, but most of them are just falsifications.

These products have different qualities:

- Standard AGM with gel label
- Standard AGM “charged” with gel
- Gel products with low-grade quality

New and low priced gel batteries from various manufacturers are offered in the market. Allegedly with identical cycles, lifetime and similar performance data as for Sonnenschein Gel dryfit. It turns out to be what everybody should actually know. Buying only on price always results in cheap batteries, but rarely good value for money.

In the field of industrial usage, gel technology has already successfully sustained its position against the AGM technology.

The industry today is in complete agreement: **the Sonnenschein Gel battery is THE BEST product for cyclic applications.**

Exide Technologies Industrial Energy – Energy solutions for a world on the move.

ABSOLYTE drysafe LIBERATOR Powerfit Sonnenschein
classic PalletPro® MARATHON Sprinter

Exide Technologies is the global leader in stored electrical energy solutions with subsidiaries in more than 80 countries. Based on over 100 years of experience in technological innovation, we are partners of OEM and serve the spare parts market for industrial and transportation applications.

Our Global Industrial Energy Business Unit offers an extensive range of storage products and services, including solutions for telecommunications systems, railway applications, mining, photovoltaic (solar energy), uninterruptible power supply (UPS), electrical power generation and distribution, fork lifts and electric vehicles.

Exide Technologies takes pride in its commitment to a better environment. Its Total Battery Management programme, (an integrated approach to manufacturing, distributing and recycling of lead acid batteries), has been developed to ensure a safe and responsible life cycle for all of its products.

Deutsche EXIDE GmbH
Im Thiergarten
63654 Büdingen – Germany

Tel.: +49 (0) 60 42 / 81 454
Fax: +49 (0) 60 42 / 81 398

www.industrialenergy.exide.com

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