Powering the World’s Vehicles: Automotive Applications

The automotive market is a vital market for the lead battery industry, currently representing 60% of the global lead battery market.

The market is projected to grow out to 2030 with limited penetration from other technologies.

Start-stop and micro-hybrid batteries

The KPIs for 12 V automotive batteries for start-stop and micro-hybrid batteries – covering durability, charge acceptance, and other metrics.

<table>
<thead>
<tr>
<th>Indicator (start-stop, micro-hybrid)</th>
<th>Current</th>
<th>2025</th>
<th>2028</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCA (EN 50342-6: A90N)</td>
<td>1.25</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td>High Temperature Durability (HTE) (weeks)</td>
<td>16</td>
<td>20</td>
<td>24</td>
</tr>
</tbody>
</table>

EN 50342-6:2015 (M1, M2, M3 classification) should be used for cycle life requirements. Maintain 15 weeks of SAE J2801, current CCA and RC requirements. Water loss below 3 g/Ah.

Summary of the key performance indicators for lead batteries for automotive systems using lead batteries.

Low-voltage EV batteries

This is a new automotive application with no agreed standards.

CBI focus:
- Improve performance, specifically cycle life
- Develop new standards

Achieving the KPIs will ensure lead batteries:
- Meet future end-user requirements
- Take future market opportunities
- Contribute to meeting ambitious decarbonization and electrification goals

The industry is on track to meet the ambitious targets we set out for DCA, cycle life and water loss.

Maintaining these metrics whilst minimizing water loss and high-temp durability issues is vital to sustain the vital role of lead batteries for the global automotive sector.

The CBI market report 2021, Avicenne.