

锂硅合金 Lithium-Silicon Alloy

产品介绍 Product introduction



锂硅合金其主相为 $\text{Li}_{13}\text{Si}_4$ ，外观为深灰色金属固体粉末，性质极不稳定，遇水强烈反应产生大量热并且放出氢气，在潮湿空气中会自燃。锂硅合金作为热电池负极材料，因其安全性、稳定性及成本低等优点，是目前用量最大的热电池负极材料。用锂硅合金作负极材料的热电池，较钙系、镁系热电池体系有着大功率放电、高比能量、激活迅速、贮存期长及结构紧凑等优点，特别适合大电流脉冲放电。

The main phase of lithium silicon alloy is $\text{Li}_{13}\text{Si}_4$, lithium silicon alloy is dark gray metal solid powder, and its property is extremely unstable, it reacts strongly with water to produce large amounts of heat and hydrogen, spontaneously ignites in moist air. Due to its advantages of safety, stability and low cost, lithium silicon alloy is the most commonly used anode material of thermal battery. Compared with calcium and magnesium thermal battery system, thermal battery using lithium silicon alloy has the advantages of high power discharging, high specific energy, quick activation, long storage period and compact structure, etc.

化学成分 Chemical composition

牌号 Category	Li 质量分数% Mass fraction of Li	Si 质量分数% Mass fraction of Si
Li-Si	44±2	56±2

粒度规格 Particle size

产品粒度一般控制 D50 值在 45-150um，具体粒度大小由供需双方商定。

Generally, D50 value of product granularity is 45-150um. The particle size should be determined by supply and requisitioning parties.

外观质量 Appearance

产品为银灰色金属粉末，无团聚，无目视可见夹杂物。

The product is silver-gray metal powder without agglomeration and visible inclusions.

包装、储存 Packaging and storage

锂硅合金包装于清洁、干燥的铝瓶中，以高纯氩气密封。本品应密闭隔绝空气保存，注意防潮、防水，远离热源、火源及氧化性物质。

Lithium-silicon alloy is packaged with clean and dry aluminum bottles, sealed with high purity argon. The product should be sealed off from air, moisture, water, heat sources, source of ignition and oxidizing substances.