

1. An electrode tab structure characterized in that it comprises an electrode tab body and an electrode tab encapsulation adhesive located on a surface of the electrode tab body, the electrode tab encapsulation adhesive comprises a first encapsulation adhesive layer, a second encapsulation adhesive layer, a third encapsulation adhesive layer and a fourth encapsulation adhesive layer which are sequentially stacked in a direction away from the electrode tab body, a melting point T1 of the first encapsulation adhesive layer, a melting point T2 of the second encapsulation adhesive layer, a melting point T3 of the third encapsulation adhesive layer and a melting point T4 of the fourth encapsulation adhesive layer satisfy the following condition:

$$T3 > T4 > T1 > T2.$$

2. The electrode tab structure according to claim 1, characterized in that the melting point T1 of the first encapsulation adhesive layer is 120°C~135°C, the melting point T2 of the second encapsulation adhesive layer is 100°C~115°C, the melting point T3 of the third encapsulation adhesive layer is 140°C~175°C, and the melting point T4 of the fourth encapsulation adhesive layer is 135°C~150°C.

3. The electrode tab structure according to claim 1, characterized in that at 85°C, a elongation at break of the second encapsulation adhesive layer is lower than a elongation at break of the first encapsulation adhesive layer, the elongation at break of the third encapsulation adhesive layer and the elongation at break of the fourth encapsulation adhesive layer.

4. The electrode tab structure according to claim 3, characterized in that at 85°C, the elongation at break of the second encapsulation adhesive layer is 500%~1000%.

5. The electrode tab structure according to claim 1, characterized in that the peel strength between the first encapsulation adhesive layer and the electrode tab body at 85°C is 1.5~4N/mm.

6. The electrode tab structure according to claim 1, characterized in that the thickness of the first encapsulation adhesive layer is 3~300μm, the thickness of the second encapsulation adhesive layer is 3~300μm, the thickness of the third encapsulation adhesive layer is 3~300μm, and the thickness of the fourth encapsulation adhesive layer is 3~300μm.

7. The electrode tab structure according to claim 1, characterized in that the number of the electrode tab encapsulation adhesives is 2, the 2 electrode tab encapsulation adhesives are respectively located on the two surfaces of the electrode tab body, and the two ends of the electrode tab body respectively extend out of the electrode tab encapsulation adhesives; the ends of the 2 electrode tab encapsulation adhesives respectively extend out of the two sides of the electrode tab body, and the parts of the 2 electrode tab encapsulation adhesives extending out of the electrode tab body are mutually thermally fused and connected through the first encapsulation adhesive layer.

8. The electrode tab structure according to claim 1, characterized in that the first encapsulation adhesive layer, the second encapsulation adhesive layer, the third encapsulation adhesive layer and the fourth encapsulation adhesive layer each independently comprises one or more of polypropylene, polyethylene, polybutylene, ethylene-based elastomers, propylene-based elastomers, styrene-based elastomers, polyurethane polymers, fluoropolymers, silicone resins or copolymers of the above polymers.

9. The electrode tab structure according to claim 1, characterized in that the electrode tab body is a copper electrode tab or an aluminum electrode tab.

10. A battery, characterized in that it comprises an aluminum-plastic film casing, an battery cell and the electrode tab structure according to any one of claims 1~9, the battery cell is located inside the aluminum-plastic film casing, an end of the electrode tab body is connected to the battery cell, the other end of the electrode tab body extends out of the aluminum-plastic film casing, and the electrode tab encapsulation adhesive is located between the electrode tab body and the aluminum-plastic film casing.