

Total Solution For Battery Cell Coating

Adhesive solution

In the context of Lightweighting, CTC/CTP battery structure technology has been derived. Under the demand of fast energy replenishment, the electrical safety of high-voltage battery makes it necessary to have higher coverage of cell insulation layer. The traditional PE Tape has been difficult to meet the new structure of high-strength bonding between cells, and the shaped structure at the electrode also restricts the application of PE Tape.

New structures require new materials. UV insulating coatings are worthy of your attention for their superior reliability and process flexibility, in addition to making up for the shortcomings of traditional PE Tape.



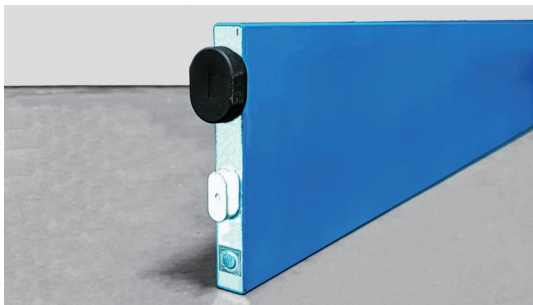
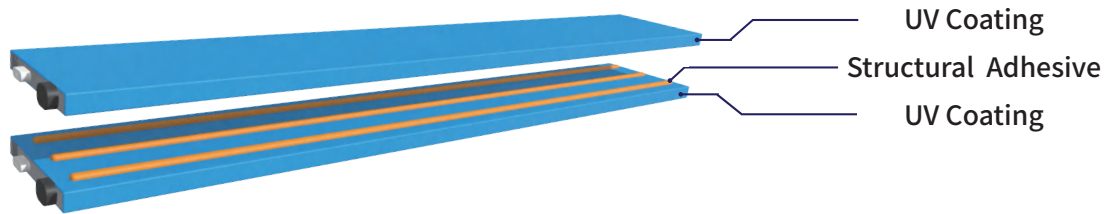
Features

- Excellent electrical insulation ability and stable working environment of electric cores;
- Matching use of structural bonding, to making stronger performance between the cells;
- UL 94 V0 of flame retardancy for prevention;
- No cutting required; Greater design flexibility; Compatible with more sizes of square batteries;
- Quick changeover and simpler application process;
- Coating and curing with fast production speed;
- Coatings can be recycling.

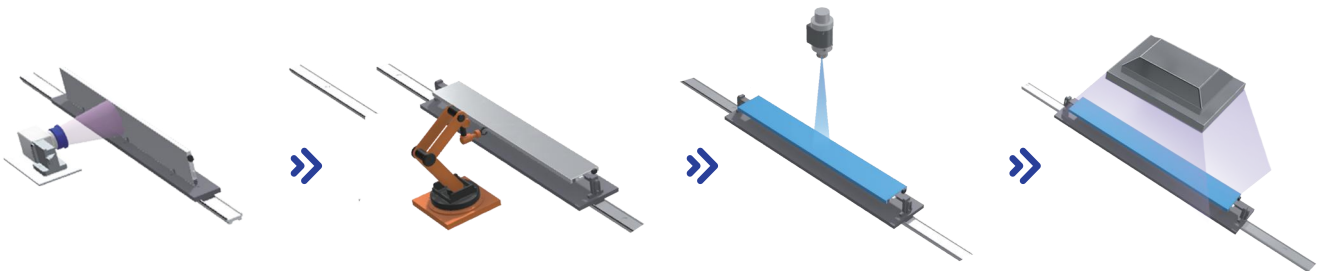
*Production in a paint booth; laser rework if cured badly

Chemical Type	Acrylic acid
Components	Single component
Density [g/cm ³]ASTM D792	~1.4
Viscosity [cps]DV2T, 14# ,20rpm@25°C	2500–3000
Curing condition:UV	>3000mJ/cm ²
Hardness GB_T 6739	HB
Shear strength[Mpa Al:Al]GB_T 7124	>10
Cross-cut Test GB_T 9286	Level 0
Insulation Test 6KV@1min	<0.1mA
Flammability UL 94	V0
Toughness 9mm@50	Pass
Volume Resistance[Ω*cm] GB_T 1410	>10 ¹³
Peeling strength[N/mm] GB_T 2790	>5

Application



Process



Surface treatment: according to the cell aluminum materials, processing technology options: laser etching, plasma cleaning, solvent wipe, etc.

Battery production line installation

Recommend airless spraying for efficient production ratios and improved material application rates.

H-lamp curing is recommended (material with photoinitiator absorption band at UVC (200-280nm)).



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