LFP battery cell finish goods appearance inspection standard

Items	Defect Name	Acceptance Criteria	Defect Image	Standards
1	QR Code	14008/6/1/200 14008/6/1/200	× X X X X X X X X X X X X X X X X X X X	Accept: Scratches, dirt etc. on the QR code do not prevent the QR code from being recognized by the scanning gun/device. Reject: QR code cannot be recognized by scanning gun/device due to the scratches, dirt etc. on the QR code.
2	Scratches on the terminal		×	Accept: Scratch length < 4.5mm, scratch depth < 0.2mm, the scratch qty < 1 strip, the scratch can be polished with sandpaper of 1000 or above mesh Reject: Scratch still cannot meet above acceptance criteria after being polished.
3	Pits on the terminal		×	Accept: Within 3mm with the positioning hole as a center: indentation radius < 0.2mm, and indentation depth < 0.2mm acceptable; Beyond 3mm away from the positioning hole: ①indentation depth < 0.1mm acceptable; ②depth between 0.1~0.2mm and length < 0.2mm, qty < 3 acceptable; ③depth > 0.2mm not acceptable. The indentation of the volumetric probe is acceptable Reject: Pits can still not meet above acceptance criteria after being polished.
4	Dirt and pollution on the terminal		×	Accept: Wipable dirt is not allowed on the surface of the terminal, the non-wipable pollution can be polished by the sandpaper of 1000 or above mesh, however, the powder dirt and touchable particle pits are not allowed on the polished terminals. Reject: Still cannot meet above standard after treatment.

5	Incomplete of the terminal	×	Accept: From terminal edge to center, notch length≤2mm, width≤1.5mm, qty≤1 acceptable. Reject: The notch exceeds above acceptance standards.
6	Incomplete on terminal rubber ring	×	Accept: Length < 5mm perimeter and no continuous damage on ceramic/metal is exposed, qty≤1 acceptable; length≤1mm, depth≤1.3mm, and no continuous damage on ceramic/metal is exposed, qty≤5 acceptable. Reject: The rubber ring notch exceeds above acceptance standards.
7	Dirt and pollution on the terminal rubber ring	×	Accept: No any electrolyte contamination is allowed on the terminal rubber ring. Reject: The above requirement is not met.
8	Terminal corrosion (e.g. green, whitish, rust)	Corrosion rating>3 degree	Accept: 3 degree standard: surface stain residual and erasable dirt are not allowed; Non-erasable dirt area is less than 1/4 of the terminal area is acceptable, the corrosion can be sanded. Reject: The corrosion area is more than 1/4 of the terminal area and cannot be sanded.
9	Sanding of the terminal	X	Accept: The terminal can be polished with sandpaper of 1000 or above mesh, after sanding, there is no visible particle residue on the surface. Reject: The above requirement cannot be met after sanding.

10	Black prints and grinding on the surface of terminal		X	Accept: The black print length≤5mm, qty≤2 marks, the dirty black marks can be erased or sanded. Reject: The above requirement cannot be met after sanding.
11	Damage and deform of the explosion-p roof valve	1	×	Accept: Explosion-proof valve damage and irregular deformation is not allowed. Reject: The above requirement cannot be met.
12	Bulge of the explosion-p roof valve	1	×	Accept: Explosion-proof valve bumps are not allowed. Reject: The above requirement cannot be met.
13	PET film abnormal of the explosion-p roof valve		×	Accept: No any missing, damage, dirty are allowed, the PET film can be replaced with new one if any abnormal exists. Reject: The above requirement cannot be met.
14	Color difference of the explosion-p roof valve	Transport of the second of the	NA	Accept: Color difference of the explosion-proof valve for cells in one batch is acceptable. Reject: Need to be discussed.
15	Dirt and electrolyte pollution on the explosion-p roof valve		×	Accept: Glue residue is allowed, residual liquid and oil φ≤3mm is acceptable. Reject: Residual liquid and oil ≥3mm.

16	Rubber ring cracks and welding wires on the terminal		×	Accept: Cracks are not allowed on the rubber ring, the welding wires are acceptable. Reject: The above requirement cannot be met.
17	Protrusion of the blue film from the edge of the terminal	1	×	Accept: The protrusion of the blue film from the edge of the terminal is not allowed Reject: The blue film is exposed out of the edge of the terminal.
18	Seal nails warp issue		×	Accept: Seal nails warp ≤0.2mm Reject: Seal nails warp >0.2mm
19	Damage of the wrapping film		×	Accept: Blue wrapping film no damage, no aluminum shell is exposed, damage \le 3mm can be patched, patch size 20*20mm, qty \le 1 place Reject: The above requirement cannot be met.
20	Foreign material under the wrapping film		X	Accept: Soft foreign material is allowed, hard foreign material is forbidden. Judging criteria on main surface: with clamp force 300Kgf, if the blue film in the corresponding position of the foreign material is not whitish, it can be determined as a soft foreign material, and if is is whitish, it is a hard foreign material. Judging criteria on side surface: press by hand, if the blue film is

			not whitish in the corresponding position, it can be determined as a soft foreign material, and if it is whitish, it is a hard foreign material. Reject: Hard foreign material exists.
21	Pleats of the wrapping film	×	Accept: The individual pleat width≤2mm, and pleat length≤10mm, and qty≤2 pleats. Reject: The above requirement cannot be met.
22	Warping of the wrapping film	×	Accept: The warping between the blue films(coincident edge) at the end side of the cell should not exceed the edge side of the cell, and the warping qty≤1. Reject: The above requirement cannot be met.
23	Wrapping Bubbles	×	Accept: Bubble diameter≥10mm is not allowed; 8mm < bubble diameter≤10mm, 1bubble allowed; 4mm < bubble diameter≤8mm, bubble qty≤5 allowed; 2mm < bubble diameter≤4mm, bubble qty≤10 allowed for each side; bubble diameter≤2mm is acceptable. Patch is allowed, patch size ≤20*20mm, qty≤1 patch. Reject: The above requirement cannot be met.
24	Scratch on wrapping film	×	Accept: The scratches are acceptable when they don't damage the blue wrapping epidermis and exposure the aluminum shell, at the same time the insulation test can be passed. Reject: The above requirement cannot be met.

25	Pits on the blue wrapping film		×	Accept: Pit diameter≤10mm, and depth≤0.3mm, and qty≤3 pits. Reject: The above requirement cannot be met.
26	Color difference on the blue wrapping film	THE STATE OF THE S	NA	Accept: Wrapping film color difference is not allowed for the cells in the same group. Reject: The above requirement cannot be met.
27	Crook of insulation sheet	+	* O	Accept: The insulation sheet is not allowed to exceed the edge of the battery cell, and should not cover the terminals, QR code and explosion-proof valve. Reject: The above requirement cannot be met.
28	Warping of the insulation sheet	ENE DOS	×	Accept: The coating insulation sheet is not allowed to warp except for the 4 corners. The warp height of the 4 corners should be less then 4mm (shown as the picture) Reject: The above requirement cannot be met.
29	Pleats on the insulation sheet	+	×	Accept: No Pleats and damage on the insulation sheet. Reject: The above requirement cannot be met.

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30	Crease on the main sides	√	× X X X X X X X X X X X X X X X X X X X	Accept: Crease length \(\leq 50\text{mm}, \) and the qty*width \(\leq 2*2\text{mm}. \) Reject: The above requirement cannot be met.
31	Top white on the blue wrapping film	1	×	Accept: Top white on the blue wrapping film is not allowed. Reject: Top white on the blue wrapping film occurs.
32	Dirt and pollution on the blue wrapping film	√	×	Accept: No any dirt and pollution on the blue wrapping film. Reject: There is any dirt and electrolyte pollution on the blue wrapping film.
33	Foreign material, crook, bubble on the insulation sheet at the cell bottom		×	Accept: The bottom insulation sheet is not damaged, does not exceed the edge of the battery cell. The bottom bubble is acceptable Reject: The bottom insulation sheet exceeds the edge of the battery cell, and any hard foreign material exists.

Customer signature:

EVE signature: