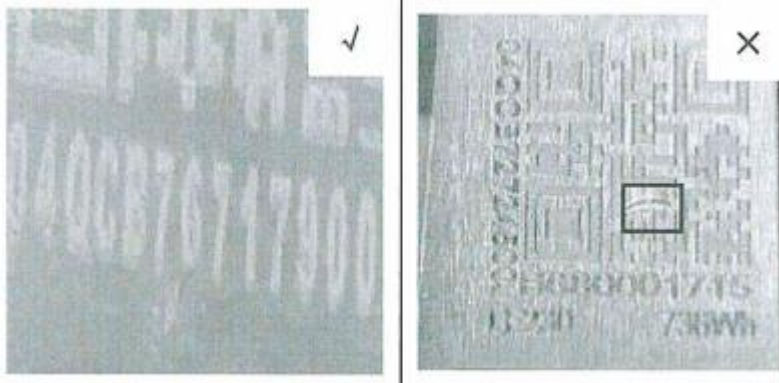


The exterior inspection standards for high-capacity LFP battery cells

Official Standards from EVE for HSEV Grade Cells

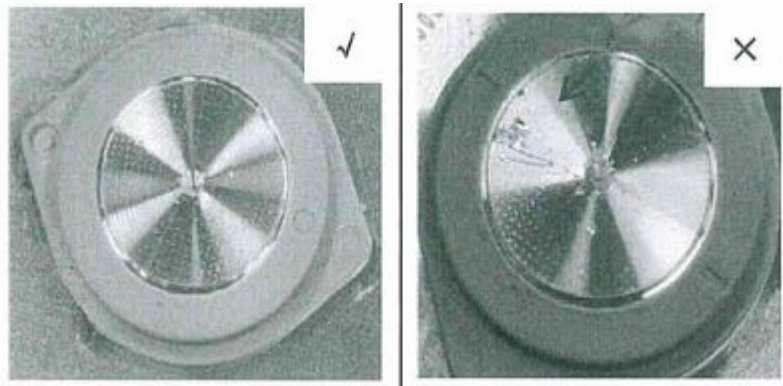
1. QR



Acceptance criteria:

The QR code, albeit marred by scratches and smudges, remains decipherable to the scanning device.

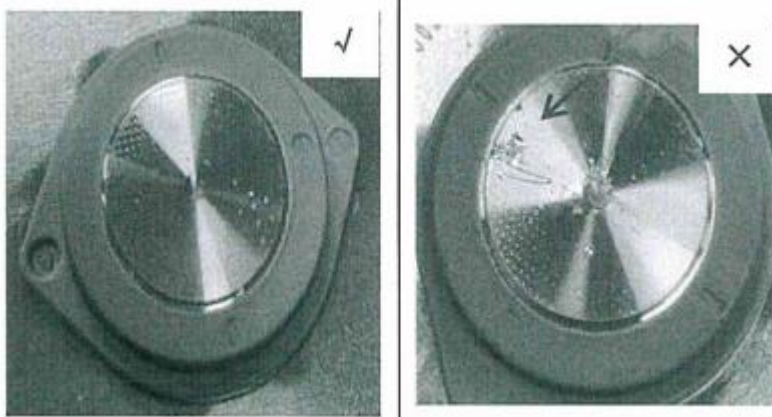
2. Polar column scratches



Acceptance criteria:

After polishing with grit no less than 1000, the length of the scratch $\leq 4.5\text{mm}$, the depth of the scratch $\leq 0.2\text{mm}$, and the number of scratches ≤ 1 .

3. Polar concave point



Acceptance criteria:

Within 3mm of the center of the locating hole:

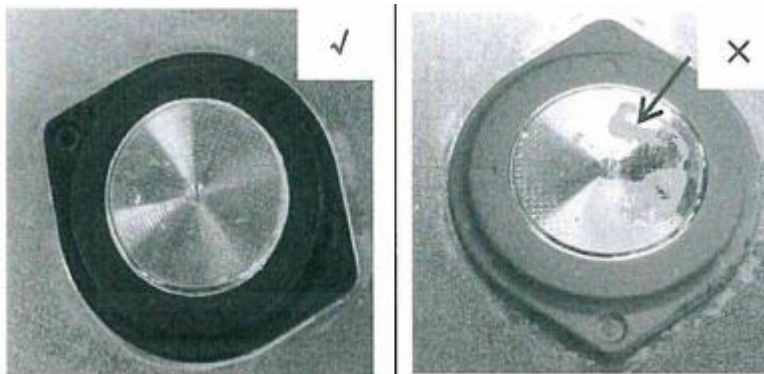
Indentation's maximum radius $\leq 0.2\text{mm}$, depth $\leq 0.2\text{mm}$.

Beyond 3mm from the center of the locating hole:

- a. Indentation depth $\leq 0.1\text{mm}$
- b. For indentation depth between 0.1mm and 0.2mm, the indentation length $\leq 0.2\text{mm}$, the quantity ≤ 3 .

Prior to measurement, sandpaper may be used for polishing.

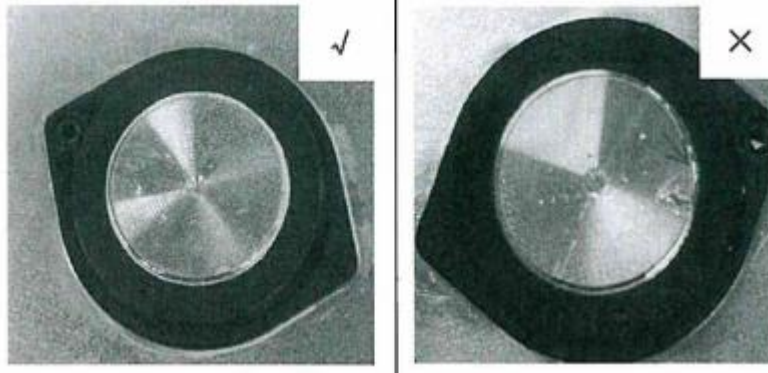
4. Pole cleanliness:



Acceptance criteria:

The surface of the pole must remain unmarred by any removable dirt or grime. Non-removable filth may be polished using sandpaper of a grade no less than 1000, but no residual dust or dirt should be left behind. The pole, once polished, should exhibit no tactile granular indentations.

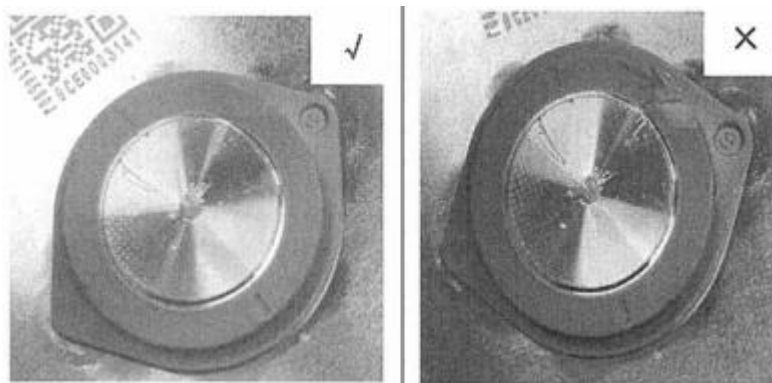
5. Pole disrepair



Acceptance criteria:

The edge of the polar column's surface exhibits a shortfall extending towards the center, with a length $\leq 2\text{mm}$, a width $\leq 1.5\text{mm}$, and a maximum of one such deficit.

6. Damage to the Polar Column Gasket

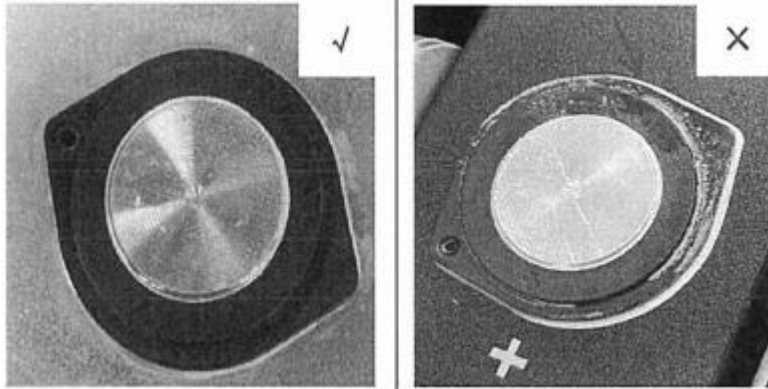


Acceptance criteria:

Continuous impairment: The ceramic or metal remains concealed, with the length $\leq 5\text{mm}$ and the quantity fewer than one.

Punctate damage: The ceramic or metal stays hidden, featuring a length $\leq 1\text{mm}$, a depth $\leq 1.3\text{mm}$, and a quantity fewer than five.

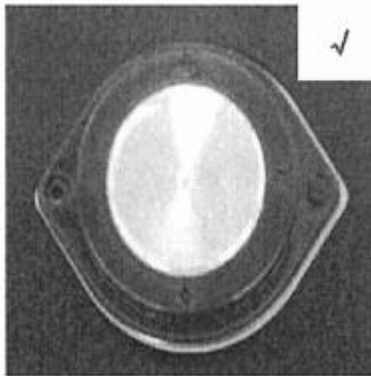
7. Pole Cylinder Contamination:



Acceptance criteria:

Remains untainted by electrolyte.

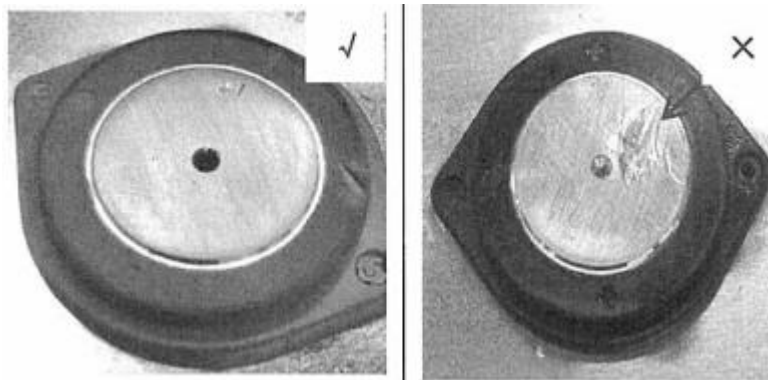
8. Pole Corrosion:



Acceptance criteria:

The surface must remain free from residual stains, devoid of erasable grime. Post-polishing, the area of ineradicable filth should occupy <math><1/4</math> of the pole's surface.

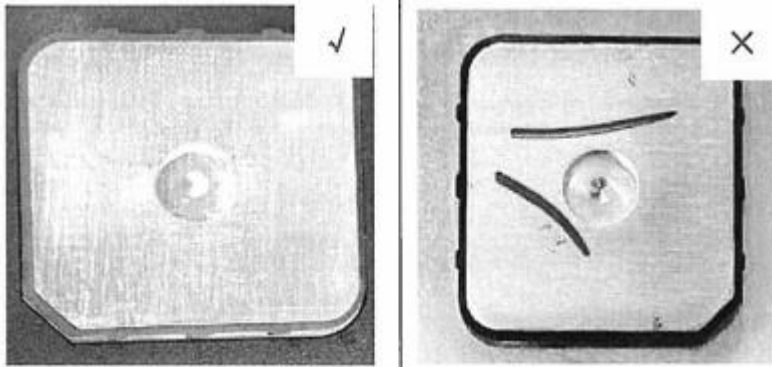
9. Pole Polishing:



Acceptance criteria:

Utilize sandpaper of a granularity exceeding 1000 for refinement, ensuring that the surface is devoid of any particulate residue discernible to the naked eye.

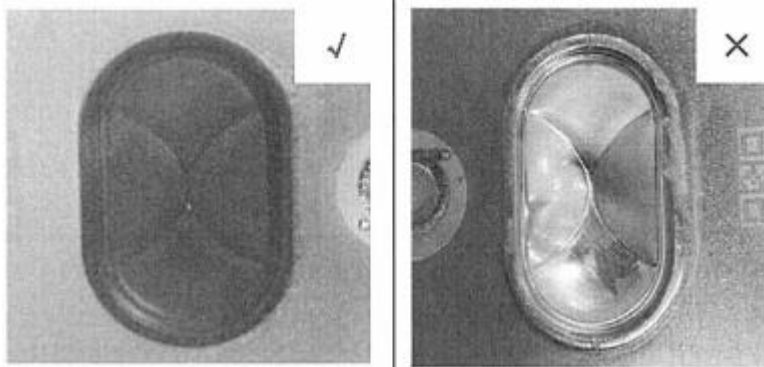
10. Polar Cylindrical Surface Mark:



Acceptance criteria:

The polar cylindrical surface must be devoid of any erasable pencil markings. Post-cleaning or polishing, the presence of non-erasable dirt marks, each not exceeding a length of 5mm, should be limited to a maximum of two instances.

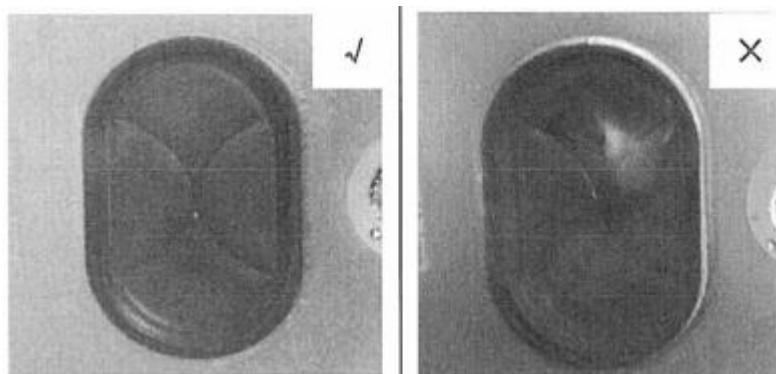
11. The explosion-proof valve is damaged and deformed:



Acceptance criteria:

No damage or irregular deformation is observed.

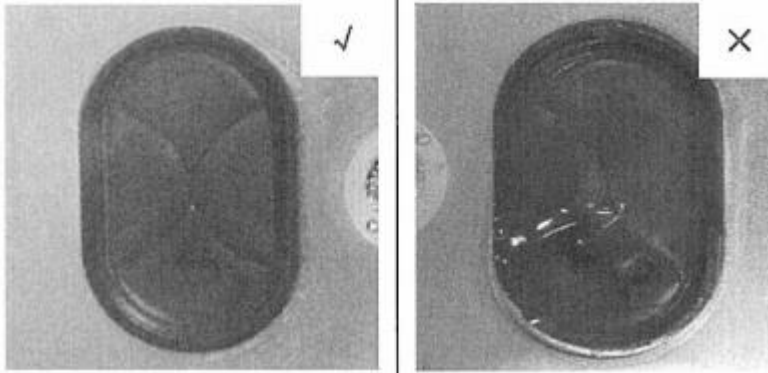
12. The explosion-proof valve is protruding:



Acceptance criteria:

It exhibits no punctiform elevation.

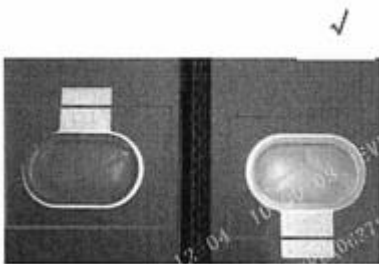
13. Abnormality in the explosion-proof valve's PET film:



Acceptance criteria:

No signs of deficiency, damage, or contamination. Replacement of a new PET film is permissible.

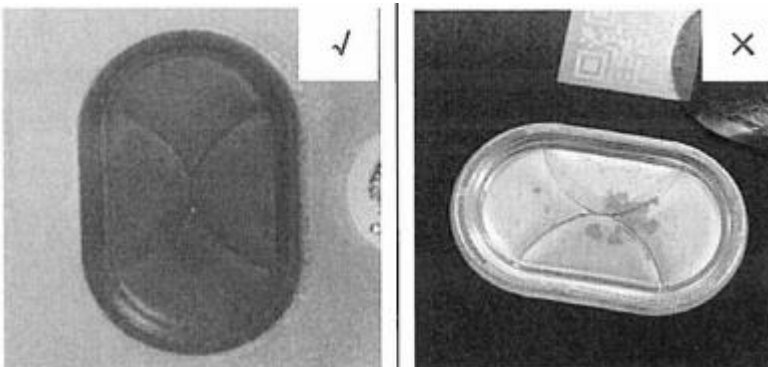
14. Discrepancy in explosion-proof valve color:



Acceptance criteria:

With the customer's approval, variations in color can be accepted.

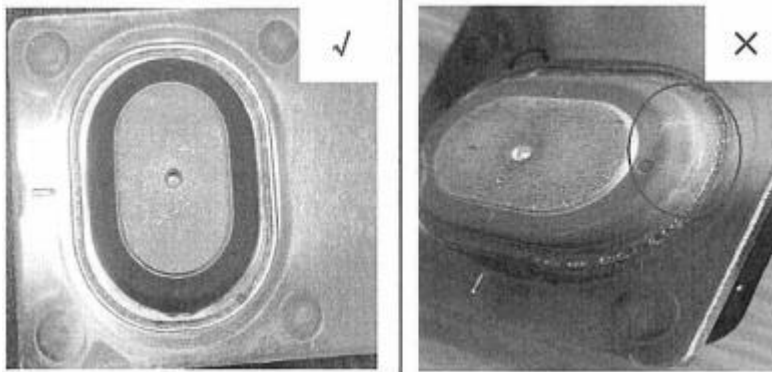
15. Explosive valve contamination:



Acceptance criteria:

Permissible traces of adhesive residue are allowed. The diameter of residual liquids and oil stains should not exceed 3mm.

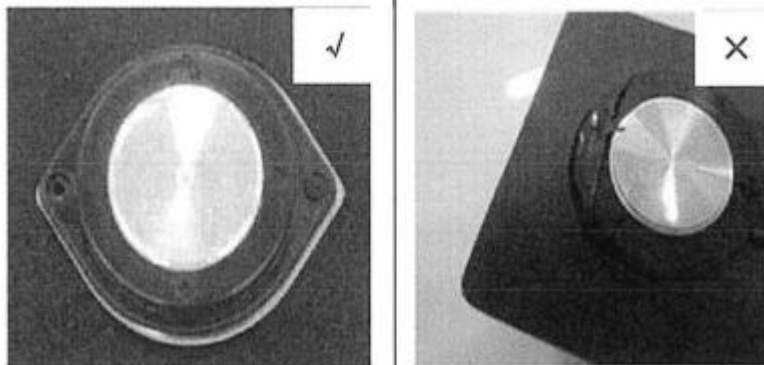
16. Cracks in the extremity rubber ring:



Acceptance criteria:

Cracks in the extremity rubber ring are prohibited, while fused joints are permissible.

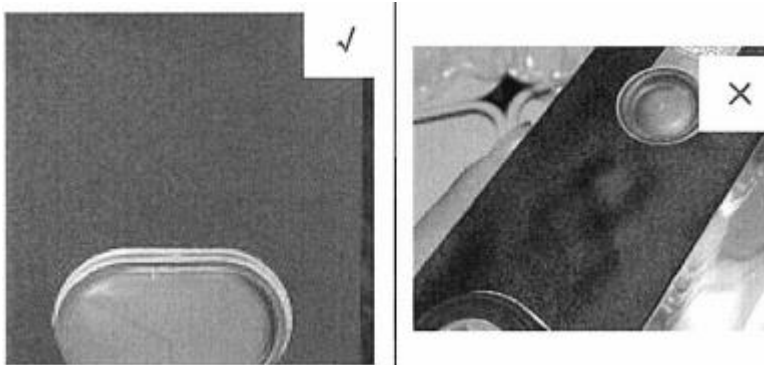
17. Prominence of the periphery of the polar pillar:



Acceptance criteria:

The blue film remains concealed.

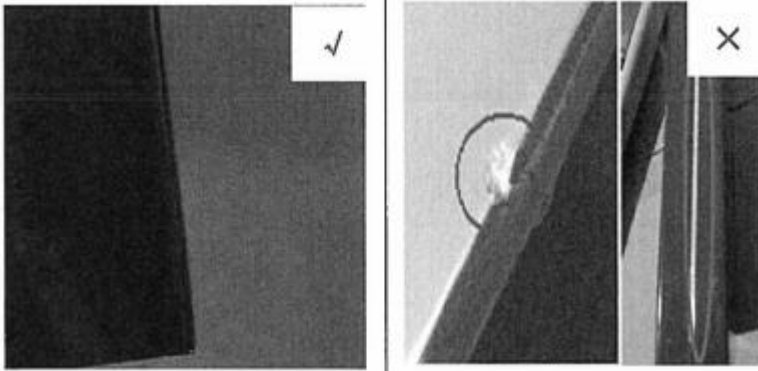
18. Elevation of the sealing pin:



Acceptance criteria:

The maximum elevation is $\leq 0.2\text{mm}$.

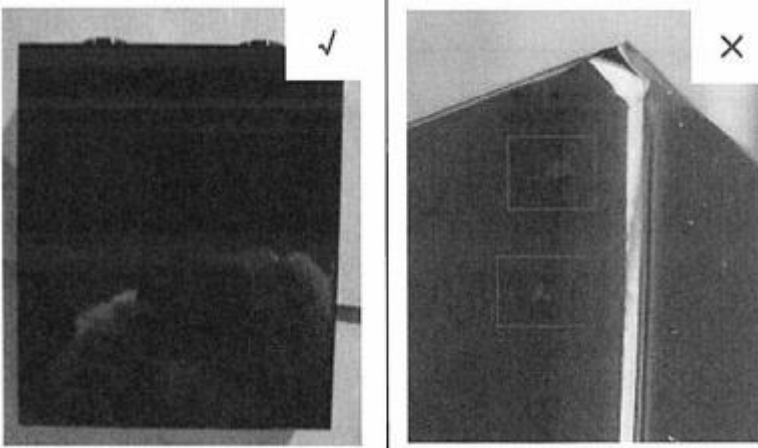
19. Damage to the blue film:



Acceptance criteria:

The blue film remains intact, and the area it covers must not allow any aluminum shell leakage. For damages measuring 3mm or less, a patch with dimensions of 20*20mm may be applied, with a maximum of one patch allowed.

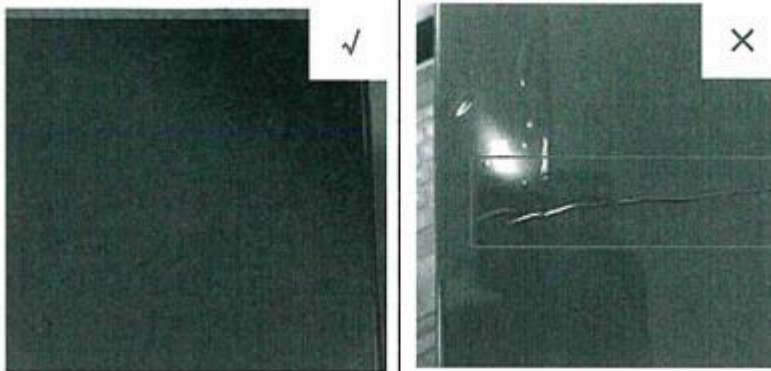
20. Foreign objects within the packaging:



Acceptance criteria:

Flexible foreign objects are acceptable, while rigid foreign objects are not acceptable. Apply a force of 300kgf to press the front foreign object, or use your hand to press the side foreign object. If the blue film at the corresponding location does not turn pale, it indicates a flexible hard object. If it turns pale, it indicates a rigid foreign object.

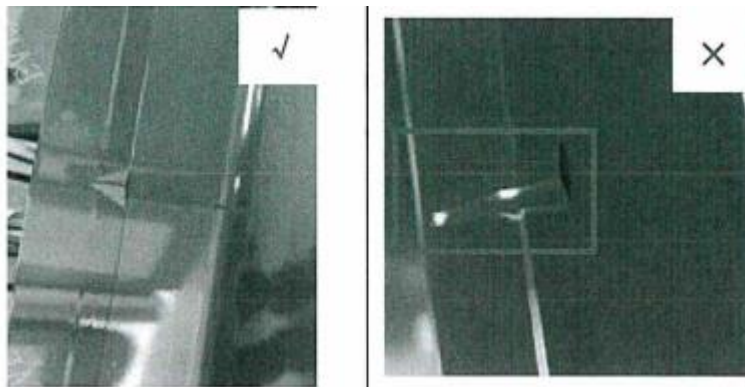
21. Folds in the packaging:



Acceptance criteria:

Each individual fold should have a width $\leq 2\text{mm}$, a length $\leq 10\text{mm}$, and there should be no more than 2 folds in total.

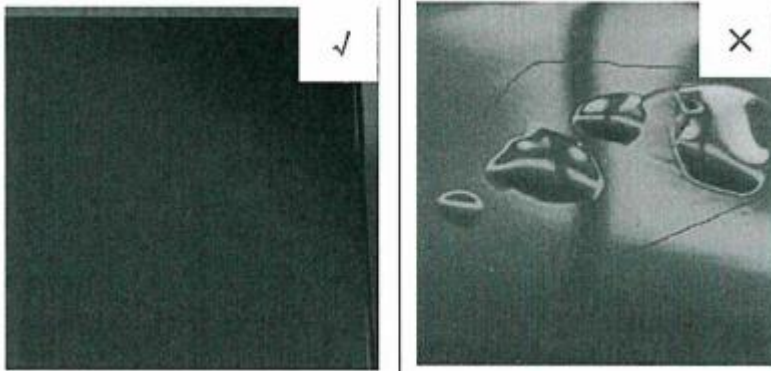
22. The uplift of the wrapper:



Acceptance criteria:

A slight elevation on one side of the battery cell's blue film seam is permissible, provided that the uplift does not extend to the front face of the cell.

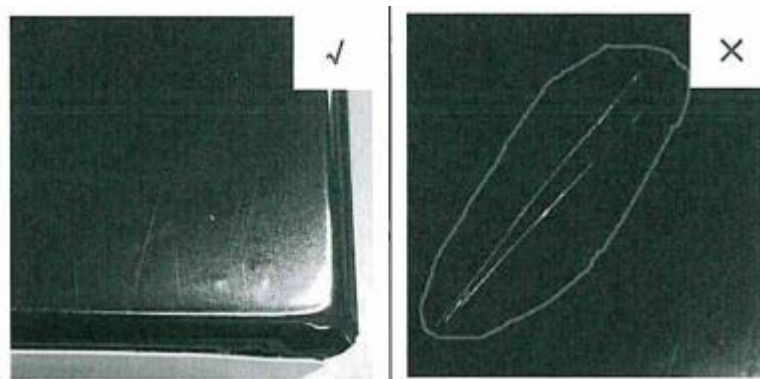
23. Bubbles in protective film:



Acceptance criteria:

Permissible are: one bubble with a diameter of 8mm to 10mm, five bubbles with a diameter of 4mm to 8mm, ten bubbles with a diameter of 2mm to 4mm on each surface, and any number of bubbles with a diameter smaller than 2mm. A patch measuring up to 20mm by 20mm can be applied.

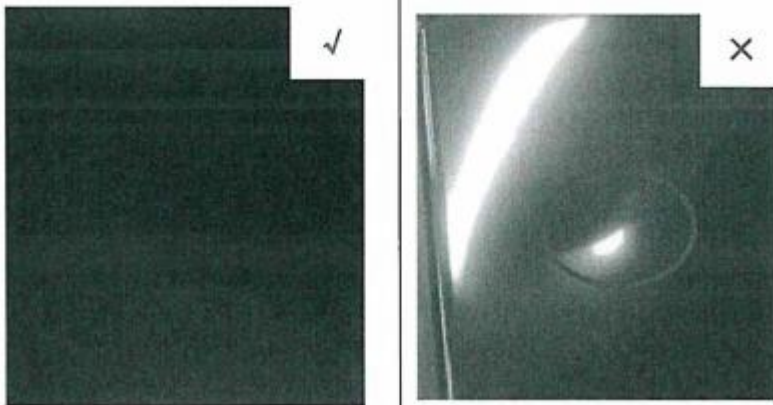
24. Scratches on the blue film:



Acceptance criteria:

The surface of the blue film remains intact, devoid of any visible blemishes. It can be assessed through insulation testing.

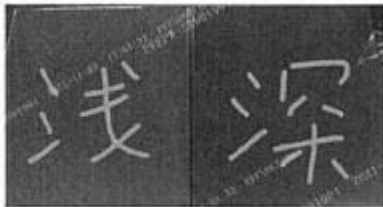
25. Indentations on the surface of the coating:



Acceptance criteria:

Their diameter $\leq 10\text{mm}$, their depth $\leq 0.3\text{mm}$, and their quantity does not surpass three.

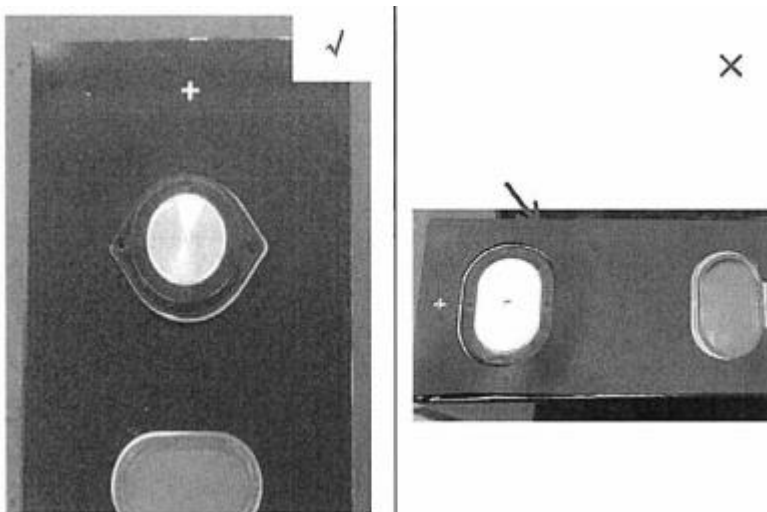
26. Color difference of the blue film:



Acceptance criteria:

The blue film of the same group of battery cells exhibits no chromatic aberration.

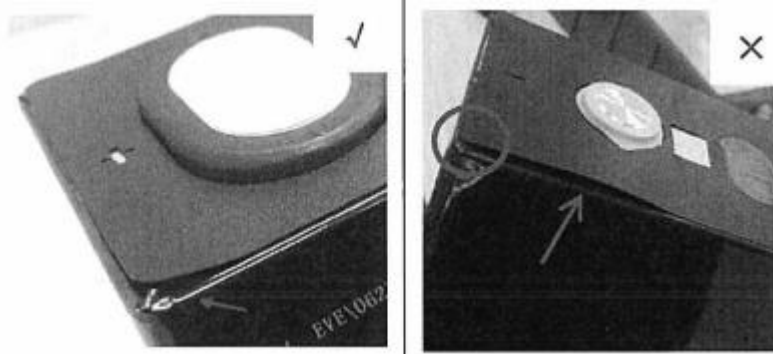
27. Misalignment of insulating sheets:



Acceptance criteria:

The insulating sheets must not protrude beyond the edge of the battery core, obstruct the electrode terminals, or cover the QR code and explosion-proof valve.

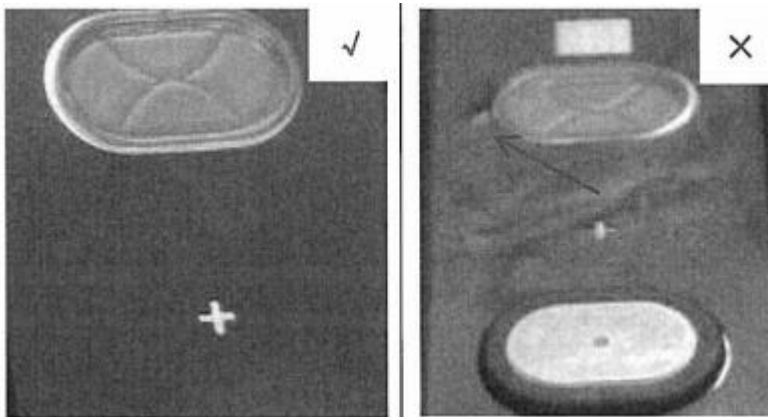
28. The raising of insulation pieces:



Acceptance criteria:

Allow for the insulation pieces at the four corners to have a slight elevation, with the maximum height $\leq 4\text{mm}$.

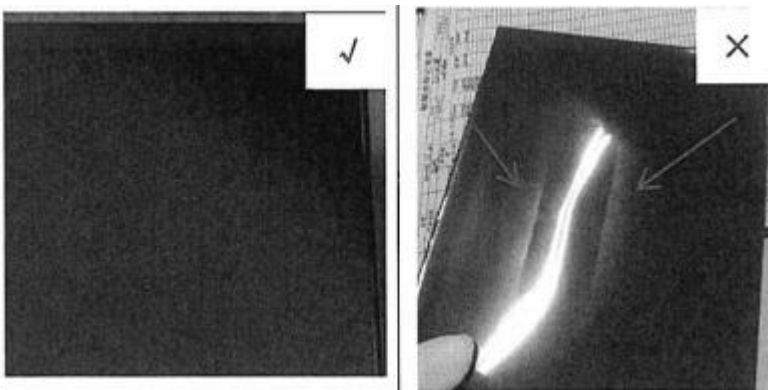
29. Folds in the insulating sheet:



Acceptance criteria:

No discernible creases, no signs of damage.

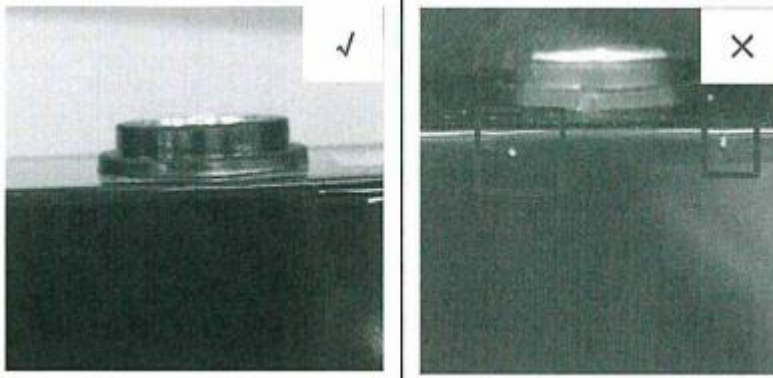
30. The creases of the blue film:



Acceptance criteria:

The length of the creases $\leq 50\text{mm}$, the width $\leq 2\text{mm}$, and the quantity shall not exceed 2.

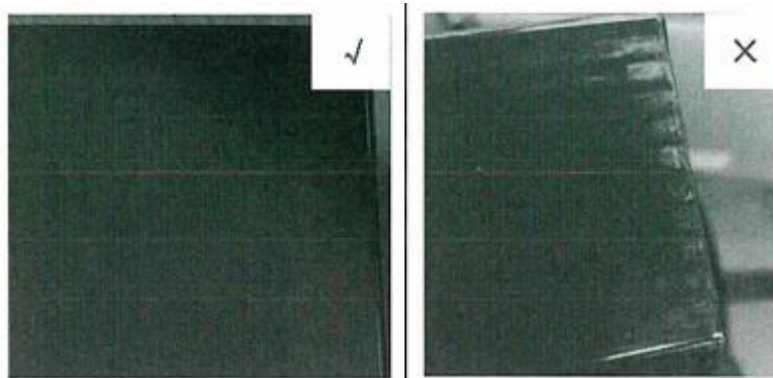
31. Whitening caused by the protrusion of the blue film:



Acceptance criteria:

No whitening.

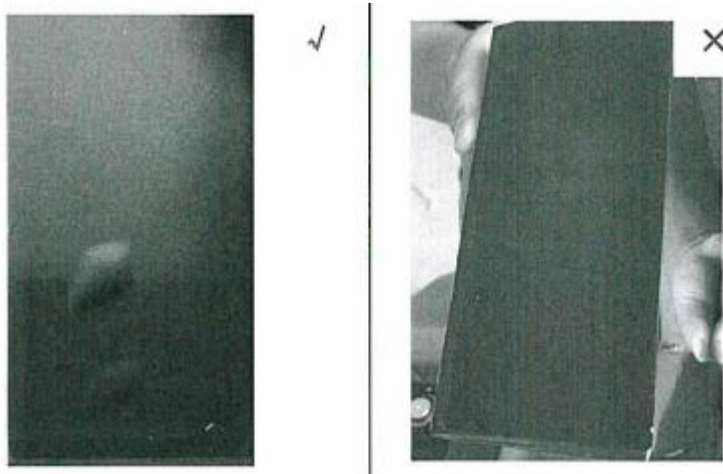
32. Stains on the blue film:



Acceptance criteria:

No dirt or stains are permissible.

33. Insulation at the bottom:



Acceptance criteria:

Intact, within the confines of the electrode, permissible presence of air bubbles. No foreign hard objects present.

34. Thickness:

Acceptance criteria:

According to datasheet, for LF280K cells, under a force of 300 ± 20 kilogram-force, with a state of charge (SOC) ranging from 30% to 40%, the thickness should be around 71.7 ± 0.8 millimeters. There will be a maximum gap of approximately 1.6 millimeters between the cells. In the event that no external force is exerted or if the state of charge (SOC) is elevated, the gap might expand.

Part of Original Document:

LFP 高容量电芯成品外观检验标准

31	蓝膜顶白			<p>接受: 蓝膜顶白不允许</p> <p>拒收: 不符合以上接受标准</p>
32	蓝膜脏污			<p>接受: 脏污不允许</p> <p>拒收: 电芯蓝膜脏污, 电解液污染的</p>
33	底部绝缘片异物, 贴歪、气泡			<p>接受: 底部绝缘片无破损, 不超出电芯边缘, 底部气泡可接受</p> <p>拒收: 超出底部边缘, 硬质异物不允许</p>

甲方确认:

乙方确认:

