

## Summary of IS 1069:2021

IS 1069:2021 specifies the quality tolerances for water used in storage batteries. This water, obtained through distillation or other purification processes like demineralization, ion exchange, electrodialysis, or reverse osmosis, must meet strict standards to ensure optimal battery performance. The standard outlines specific limits for various impurities, including:

- **Conductivity:** A measure of the water's ability to conduct electricity, which should be minimized to prevent internal corrosion within the battery.
- **pH:** The water's acidity or alkalinity, which should be within a specific range to avoid adverse effects on battery components.
- **Chloride content:** Excessive chloride ions can lead to corrosion, so their concentration is strictly limited.
- **Sulfate content:** Sulfates can also contribute to corrosion, particularly in lead-acid batteries, hence their levels are regulated.
- **Other impurities:** The standard also sets limits for other contaminants like iron, copper, and organic matter, which can negatively impact battery performance and lifespan.

Adherence to these quality tolerances is crucial for maintaining the efficiency, reliability, and longevity of storage batteries.