

## Summary of IS 1069:2021

**Battery Water** is used in Electrical storage type secondary batteries for electrolyte dilution or topping up during its life cycle of charging and discharging operations. To ensure optimal battery performance the selection of **Battery water** is key concern.

**Battery water** obtained from ordinary water through distillation or other purification processes like demineralization, ion exchange, electro dialysis, or reverse osmosis and it is free from additional minerals that you would find in water such as regular tap water.

The consumer expects **Battery water** must have least damage to the components of Battery and is having minimal corrosion effects on battery components. To prevent internal corrosion within the battery thus ensure optimal battery performance the Battery, the **Battery Water** should have least Specific electrical conductivity. The Specific electrical conductivity of **Battery water** depends on suspended impurities, other dissolved salts and pH.

IS 1069:2021 specifies 1. The quality tolerances levels of pH of **Battery water** 2. Specific electrical conductivity at 25°C (Max). These two requirements of **Battery water** ensure optimal battery performance in addition to the requirements of odour, taste, Colour and suspended impurities. The standard also specifies the method of sampling from the lots of water for storage Batteries.

The standard outlines specific limits for:

- **Specific electrical conductivity:** A measure of the **Battery water's** ability to conduct electricity, which should be minimized to prevent internal corrosion within the battery. The limit set by standard is 0.5 micro siemens per cm maximum
- **pH:** The **Battery water's** acidity or alkalinity, which should be within a specific range to avoid adverse effects on battery components (6.5 to 7.5)
- The **Battery Water** shall be clear, odourless, tasteless, colourless and free from suspended impurities.

In summary, IS 1069:2021 is your assurance that the Battery Water you buy is high quality having minimal corrosion effects on battery components and enhanced life of Secondary Batteries. Adherence to these quality tolerances of **Battery Water** is crucial for maintaining the efficiency, reliability, and longevity of storage batteries. Next time you purchase Battery Water, look for the BIS mark to ensure they meet these standards, giving you peace of mind for your optimal performance of Batteries