

## IS 8978:1992 Specification for Electrical Instantaneous Water Heaters

**Instantaneous water heaters**, also known as **tankless water heaters** or **on-demand water heaters**, are devices that heat water only when needed, without storing it in a tank. When a tap or shower is turned on, cold water passes through the heater, where it is quickly heated to the desired temperature. Unlike conventional storage water heaters, they do not preheat or store hot water, which reduces energy consumption and eliminates heat loss from stored water. Instantaneous water heaters are compact in design, making them ideal for spaces with limited room, such as kitchens, bathrooms, and utility areas.

Key quality parameters include :

- **Quick heating capability** for immediate hot water supply,
- **Energy efficiency** to minimize electricity consumption, and
- **Safety features** to protect against electric shocks, overheating, and pressure build-up.

IS 8978:1992 lays down stringent requirements for the **design, performance, safety, and testing** of electrical instantaneous water heaters. The standard specifies the heating efficiency, temperature control mechanisms, and electrical insulation properties to ensure reliable performance and energy savings. It includes safety guidelines, such as protection against **electric shock, overheating, and pressure hazards**, ensuring user safety. Furthermore, the standard mandates tests for **mechanical strength, durability, and water resistance** to ensure the product withstands regular use in varying conditions. By compliance to this standard, manufacturers can produce high-quality water heaters that meet performance, safety, and durability benchmarks, providing consumers with a reliable and efficient product.