

Indian Standard IS 9798:2013- Your Guide to Safe LPG regulators

IS 9798:2013 specifies the requirements for low-pressure regulators for use with liquefied petroleum gas (LPG) mixtures. These regulators control the **flow and pressure** of the gas which is released from the cylinder to gas stoves. The standard applies to regulators designed for use with LPG mixtures (propane, butane, and their blends) and is intended to ensure their safe and reliable operation. **Low pressure** is considered to be any pressure below 6.894 kN/m² (70.3 gf/cm²). Domestic and commercial appliances normally operate at gas pressure of 2.942 kN/m² (30 gf/cm² or 300 mm water column).

Regulators are critical components in household safety as regulators are widely used in the kitchen along with the LPG cylinders and therefore, regulators must be designed and built to prevent **gas leaks**, malfunctions, or accidents, including **over-pressurization or uncontrolled release of gas**. The regulator should maintain a consistent pressure output over time and throughout the entire usage cycle. The materials used should withstand corrosion, wear and tear, and shall be compatible with the LPG. The regulator should be easy to install and use. The regulator must provide stable control of gas **flow and pressure** to ensure gas stoves function safely and efficiently.

This standard specifies the materials, construction, performance and testing requirements, marking and labelling requirements for low pressure single or two stage regulators for use with LPG. Key aspects of the standard are Design and Construction requirements, Requirements for materials, Performance requirements (like **outlet pressure, outlet flow, soundness test for leak tight, inlet sealing test, performance at high temperature and low temperature, cycle test**, etc.), testing Procedures, and marking requirements.

In summary, IS 9798 ensures that the regulators are safe, reliable, and efficient in controlling the pressure of LPG which is released from the cylinder.