

IS 17544:2022 (Multilayer (PE-AL-PE) Plastic Piping Systems for Indoor Gas Installations with a Maximum Operating Pressure up to and Including 500 kPa (5 bar) - Specification)

Indian Standard IS 17544: 2022 outlines the specifications for multilayer plastic piping systems (PE-AL-PE) used in indoor gas installations. These pipes, composed of polyethylene and aluminum, are engineered for carrying gaseous fuels such as natural gas and LPG within residential and commercial buildings, designed to operate safely under pressures up to 500 kPa (5 bar).

For end-users, essential qualities in indoor gas piping systems include reliable safety, leak resistance, and durability against mechanical impacts and environmental stressors. Additionally, ease of installation and maintenance, ensuring minimal disturbance to building operations, is a priority for effective residential and commercial applications.

To meet these needs, IS 17544: 2022 prescribes a composite structure combining polyethylene for flexibility and corrosion resistance with aluminum for added strength. The standard specifies comprehensive requirements on pipe dimensions, material composition, and mechanical properties, including thermal stability. Rigorous testing protocols, such as pressure and leak assessments, ensure the system's safety and reliability under varied conditions.