

# IS 15225:2002- CHLORINATED POLYVINYL CHLORIDE COMPOUNDS USED FOR PIPES AND FITTINGS - SPECIFICATION

## Product definition and General view

CPVC (Chlorinated Polyvinyl Chloride) pipe fittings are specialized components used to connect and secure CPVC pipes in plumbing systems. CPVC is a thermoplastic made by chlorinating polyvinyl chloride (PVC) resin, which enhances its temperature and corrosion resistance. As a result, CPVC fittings are commonly used in both hot and cold water plumbing, particularly in residential, commercial, and industrial applications where temperature resilience is needed.

IS 15225:2002 is an Indian Standard specifically designed for chlorinated polyvinyl chloride (CPVC) compounds used in pipes and fittings. This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Plastics Sectional Committee had been approved by the Petroleum, Coal and Related Products Division Council. The CPVC compounds are processed by techniques such as **extrusion, injection moulding, compression moulding, calendaring**, etc. This standard deals only with CPVC compounds and its major applications are pipe, profiles, sheet, fittings and associated ancillary products.

Key specifications in IS 15225:2002 include maintaining specific chlorine content levels (**above 66.5% for raw resin and 57.5% for final products**) and testing for **tensile strength, impact resistance, and vicat softening temperature** under regulated conditions. Tensile Strength, Tensile modulus and As content, Charpy impact strength etc parameters ensures better quality of the product.

CPVC pipes and fittings made to these standards are **highly resistant to corrosion, heat, and pressure, making them ideal for both hot and cold water distribution**. This durability leads to a longer lifespan for plumbing installations and lower maintenance costs over time. Furthermore, CPVC is **less prone to scaling and microbial growth compared to metal pipes, promoting cleaner and safer water transport**. These advantages, combined with cost efficiency in manufacturing and installation, make CPVC pipes an attractive option for residential and commercial plumbing needs. Consumers adhering to CPVC pipes and fitting may ensure- **Superior Durability and Longevity, Temperature and Pressure Resistance, Cost-Effectiveness, Safe for Drinking Water, Ease of Installation, Low Maintenance, Resistance to Chemicals**.