

IS 17988: Chlorinated Polyvinyl Chloride (CPVC) Resin - Specification

IS 17988: Chlorinated Polyvinyl Chloride (CPVC) – Specification is an Indian standard that specifies the requirements for chlorinated polyvinyl chloride (CPVC), a type of thermoplastic polymer widely used in plumbing, piping systems, and various industrial applications due to its superior properties compared to regular PVC (Polyvinyl Chloride).

Key Features Process: CPVC is created by chlorinating PVC resin. This process increases the material's chlorine content, making it more resistant to high temperatures, chemicals, and corrosion.

High Thermal Stability: CPVC can withstand higher temperatures than regular PVC, making it suitable for hot water piping and industrial applications.

Corrosion Resistance: CPVC is highly resistant to a wide range of chemicals, including acids, bases, and salts, which makes it ideal for chemical processing industries and wastewater systems.

Key Aspects of IS 17988:

Material Composition: The standard defines the specifications for the raw material, ensuring that the CPVC used meets specific chlorine content and molecular weight requirements for optimal performance.

Physical Properties: The standard outlines the mechanical and thermal properties of CPVC, including tensile strength, impact resistance, hardness, and elongation, to ensure consistency in product quality.

Chemical Resistance: The specification ensures that CPVC products offer the necessary resistance to chemicals like acids, alkalis, and solvents, ensuring the material is safe and reliable for various industrial applications.

Dimensional Tolerances: IS 17988 specifies the dimensional requirements for CPVC pipes, fittings, and other products, ensuring uniformity and proper fit during installation.

Quality Assurance: The standard includes guidelines for testing the material's properties, such as stress-crack resistance, pressure-bearing capacity, and thermal stability, to ensure that CPVC products meet the required performance standards.

In summary, IS 17988 provides comprehensive guidelines for the quality, testing, and performance of CPVC, ensuring that it meets the necessary standards for various applications, including plumbing, industrial, and chemical systems. The standard helps maintain the reliability and safety of CPVC products, which are essential for modern infrastructure and industrial use.