



IS 15322: 2023, Particle Filters used in Respiratory Protective Equipment — Specification

Particle filters used in respiratory protective equipment (RPE) in India are essential for safeguarding workers from inhaling harmful airborne particles, including dust, fumes, and pathogens. These filters are designed to provide high filtration efficiency, ensuring clean air for individuals in various industries such as construction, mining, and healthcare. With growing concerns about air pollution and workplace safety, the demand for effective RPE filters has significantly increased in India.

IS 15322:2003 outlines the specifications for particle filters used in respiratory protective equipment (RPE), excluding escape apparatus and filtering facepieces. The standard classifies filters into three categories—PI, P2, and P3—based on their ability to filter solid and liquid particles. The filters must have a secure, leak-proof connection to the facepiece and be made of materials that can withstand typical environmental conditions such as temperature, humidity, and exposure to corrosive substances.

The standard also emphasizes low breathing resistance, with maximum allowable values specified for each filter class. Additionally, filters must meet specific filtration efficiency criteria, including initial penetration limits for test aerosols like sodium chloride and paraffin oil. Filters are tested for clogging resistance using coal dust or dolomite dust, depending on the industry.

Clear labeling is required, indicating filter class, batch number, expiry date, and specific usage instructions. Filters must be packed in a way that protects them from damage during transit, and detailed instructions must accompany each product, including information on application, fitting, maintenance, and storage.

IS 15322:2003 provides essential guidelines to ensure the quality, efficiency, and safety of particle filters used in respiratory protective devices. Compliance with the standard helps protect workers from harmful airborne particles in industrial, construction, and healthcare environments. By specifying stringent performance criteria and proper labeling, the standard promotes safe and effective use of RPE filters, enhancing worker safety and health.