

## **IS 15323:2003 - GAS FILTERS AND COMBINED FILTERS USED IN RESPIRATORY PROTECTIVE EQUIPMENT**

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Industrial Safety and Chemical Hazards Sectional Committee had been approved by the Chemical Division Council.

The Indian Standard IS 15323:2003 specifies guidelines for gas filters and combined filters used in respiratory protective equipment, focusing on their design, material, performance, and testing criteria. This standard outlines how these filters should be used in non-powered respiratory protection equipment, excluding devices for emergency escape or simple dust masks.

The standard mandates that gas filters should provide consistent protection against gases or vapors by adhering to a specified “breakthrough time” for various types, such as **Type A (organic gases), B (inorganic gases), E (sulfur dioxide), and K (ammonia)**. **It also details requirements on mechanical strength, ensuring that filters withstand tough environments without compromising function. Key physical specifications include a maximum weight of 300 grams for half-mask filters and 500 grams for full-face masks.**

Additionally, IS 15323 includes comprehensive instructions on markings and labeling, which should be visible and durable, providing information like manufacturer identification, filter type, class, and expiration details.

Testing requirements in this standard cover aspects such as mechanical durability, breathing resistance, and filtration efficiency, ensuring that each batch meets stringent safety requirements before certification by the Bureau of Indian Standards. Some important testing requirements are-

### **a. Mechanical Strength, b. Breathing Strength, Protection Capacity.**

**Benefits for consumers adhering to the IS 15323:2003 may be as follows-**

1. **Safety Assurance:** Ensures that respiratory protective filters meet stringent safety standards, safeguarding users against toxic gases and airborne chemicals.
2. **Reliability:** Consumers can trust that these filters will perform effectively under specified conditions, thanks to rigorous testing requirements for endurance and filtration efficiency.
3. **Health Protection:** By adhering to IS 15323, filters provide verified protection against harmful substances like ammonia, chlorine, and hydrogen sulfide, supporting consumer health, especially in hazardous environments.
4. **Reduced Risk of Defects:** The standard minimizes the chances of using defective or substandard filters, reducing the likelihood of potential exposure to harmful substances.
5. **Clear Product Marking:** IS 15323 mandates clear labeling of filter type, expiration, and performance class, which helps consumers choose the right filter for specific needs and ensures proper use and maintenance.
6. **Peace of Mind:** Certified products provide consumers with peace of mind, knowing that they comply with the Bureau of Indian Standards (BIS) and are monitored for quality.