

IS 2645: Integral Waterproofing Compounds for Cement Mortar and Concrete

IS 2645 specifies the requirements for integral waterproofing compounds used in cement mortar and concrete. These compounds are added to the concrete mix during its preparation to improve its resistance to water penetration.

Consumers expect the following key quality parameters in these waterproofing compounds:

1. **Effective Waterproofing:**
 - **Reduced Water Absorption:** The compound should significantly reduce the water absorption rate of concrete.
 - **Increased Durability:** It should enhance the durability of concrete by protecting it from water-induced damage.
 - **Resistance to Water Pressure:** The compound should be able to withstand hydrostatic pressure.
2. **Compatibility with Concrete:**
 - **No Adverse Effects on Strength:** The compound should not negatively impact the compressive strength or other mechanical properties of concrete.
 - **No Harmful Reactions:** It should not react with the cement or other constituents of concrete, leading to undesirable effects.
3. **Ease of Use:**
 - **Simple Application:** The compound should be easy to mix with the concrete mix.
 - **Consistent Performance:** It should provide consistent waterproofing performance across different batches of concrete.

IS 2645 addresses these consumer expectations by:

- **Specifying Performance Requirements:** The standard sets specific requirements for water absorption, compressive strength, and other relevant properties of concrete treated with the waterproofing compound.
- **Prescribing Testing Methods:** It outlines detailed testing procedures to assess the effectiveness of the compound in improving the waterproofing properties of concrete.
- **Ensuring Quality Control:** The standard emphasizes the importance of quality control measures during the manufacturing and application of the compound.
- **Providing Guidelines for Use:** It provides guidelines for the correct dosage and mixing procedures to ensure optimal performance.

By adhering to the guidelines of IS 2645, manufacturers can produce high-quality waterproofing compounds that meet consumer expectations for effectiveness, compatibility, and ease of use.