

IS 15030:2022 Terephthalic Acid — Specification

Terephthalic acid, having the chemical formula $\text{HOOC-C}_6\text{H}_4\text{-COOH}$, is an aromatic dicarboxylic acid. It is primarily used as a monomer in the production of polyethylene terephthalate (PET). Terephthalic acid-based polymers are widely used in various industries including packaging, textile fibers, polyester resins, polyurethane coatings, polyurethane foams, protective coatings, electrical components, and automotive applications due to their high thermal stability, chemical resistance, lightweight, transparency, high strength, and durability.

Breathing Terephthalic Acid can irritate the nose, throat and lungs causing coughing, wheezing and/or shortness of breath. Contact can irritate the skin and eyes.

IS 15030 prescribes that terephthalic acid shall be in the form of white crystalline free flowing powder, free from extraneous impurities like dust and dirt. IS 15030 also prescribes the following requirements and the corresponding methods of test to ensure the quality of terephthalic acid –

- Maximum permissible moisture content
- Permissible limit for colour
- Maximum permissible ash content
- Acid value
- Permissible limit for total and individual content of iron, cobalt, manganese, chromium and titanium
- Permissible limit for total and individual content of sodium, magnesium, potassium, calcium and nickel
- Maximum permissible content of 4-carboxybenzaldehyde
- Maximum permissible content of 4-carboxybenzaldehyde + p-toluic acid

IS 15030 describes the basic precautions for handling terephthalic acid. It also prescribes the requirements of packing the product and important information to be marked on the packages.

Terephthalic acid (Quality Control) Order issued by DCPC mandates that all terephthalic acid sold, manufactured, or imported in India comply with IS 15030 and display the BIS Standard Mark.