

IS 13601: 1993

Ethylene Vinyl Acetate (EVA) Copolymer for its safe use in Contact with foodstuffs, Pharmaceuticals and Drinking Water

Ethylene Vinyl Acetate (EVA) Copolymer is a thermoplastic material produced through the copolymerization of ethylene and vinyl acetate monomers. Its versatility allows for a wide array of applications, attributed to its flexibility, resilience at low temperatures, and resistance to cracking. To ensure its safe application in contact with food, pharmaceuticals, and drinking water, it is essential to adhere to specific standards and guidelines that mitigate potential health risks. According to the Indian Standard IS 13601: 1993, the term "EVA Copolymer" is defined and regulated concerning its direct contact with food, pharmaceuticals, and drinking water. This standard specifies the necessary criteria for materials to prevent the leaching of harmful substances into the items they interact with.

Materials in contact with food, pharmaceuticals, or drinking water must pass specific migration tests to ensure that no harmful substances leach into the food or liquids. These tests are conducted in various solvents (representing different types of food and liquids) at elevated temperatures.

For Food Products: Colorants utilized in food items must receive approval for consumption, adhering to established limits regarding migration and toxicity. Certain pigments and dyes are deemed safe, whereas others may face restrictions due to possible health risks.

For Pharmaceuticals: Colorants incorporated in medicinal products must be non-toxic and should not compromise the effectiveness or stability of the pharmaceutical formulation.

To ensure the safe application of EVA copolymer in contact with food, pharmaceuticals, and drinking water, it is essential that the material adheres to rigorous safety, migration, and compositional standards as outlined in IS 13601: 1993. The copolymer must be devoid of harmful additives, successfully pass migration tests, and comply with the necessary toxicological safety criteria. Obtaining proper certification and ensuring compliance with relevant safety standards are vital for its utilization in these sensitive areas. If consumers intend to use EVA for such purposes, it is imperative that the product undergoes testing and certification in accordance with IS 13601: 1993 to confirm its safe usage.