

IS 1838 (Part 1) : 1983 Specification for Preformed Fillers for Expansion Joint in Concrete Pavement and Structures (Non Extruding and Resilient Type)
Part 1 Bitumen Impregnated Fibre

The joints are required in concrete roads, runways, floor and roof slabs of buildings to relieve stresses developed due to temperature shrinkage, creep, relaxation, vibration, etc. To provide an even surface the joints must be filled and at the same time the materials used for filling should permit expansion and contraction of the concrete. The joint filler is a strip of compressible material used to form and fill the expansion joints in structures. The chief function of the joint filler is to permit the joint to expand without developing stresses. Joint fillers are produced from a variety of materials such as bitumen impregnated fibre, cork strips, sponge or synthetic rubber, expanded plastics, epoxy, coconut pith and CNSL resin.

IS 1838 (Part 1) : 1983 specifies the requirements for the bitumen impregnated fibre fillers for expansion joints in concrete roads, runways and buildings. This standard was first published in 1961 with a view to provide guidance to the manufacturers to facilitate commercial production. The standard was subsequently revised in 1983 to include additional alternative fibres for the manufacture of fillers and additional physical requirements.

The physical requirements prescribed in this standard includes characteristics of resistance to handling, recovery, compression, extrusion, water absorption, density, bitumen content, weathering and penetration of recovered bitumen.

The ISS also prescribes the material, manufacture, dimensions & tolerances, packing, sampling and marking on the product. This standard permits the purchaser to use their option for selection of dimensions to suit their requirements.

The sealing compound are used over the joint filler to make the joints effective by preventing the ingress of water or grit down the joint. The requirements for sealing compounds and methods of installation of joints have been covered separately in IS 1834 : 1984, IS 3414 : 1968 and IS 6509 : 1985.