

Indian Standard (IS 16362:2020) - Geotextiles for Subgrade Stabilization in Pavement Structures

Geotextiles are specialized materials used in **road construction** to improve the stability and longevity of pavements, particularly in wet and saturated conditions. These fabrics are designed to serve functions like **separation, filtration, and stabilization** of subgrade soils. They are crucial for enhancing the performance of pavement structures, especially in areas with weak subgrades, by preventing soil erosion, reducing deformation, and providing a stable foundation for further construction.

Consumers expect **geotextiles** to provide effective **subgrade stabilization**, increase the **load-bearing capacity** of roads, and extend their lifespan. The critical quality parameters include **high tensile strength, puncture resistance, and durability** against environmental factors.

This standard covers general and performance requirements for geotextiles used in wet and saturated soil conditions to provide the subgrade stabilization in pavement structures along with coincident functions of separation and filtration.

This standard **IS 16362:2020** specifies the requirement of Geotextiles for stabilisation applications such as type of geotextile like woven or non-woven, length and width of roll, grab strength, tear strength and seam strength, and puncture strength etc. This standard also specifies the structural integrity properties including permittivity and opening size and also durability properties.

This standard specifies the requirement of sampling in accordance with IS 14706, criteria for conformity and the marking including the identification of the geotextile material as per manufacturer's recommendation, for example, polyester multifilament woven geotextile for stabilization in pavement structures. This standard also elaborated the packing details of each roll or package wrapped by LDPE film of minimum thickness of 40 microns to prevent it from the adverse impact of heat and moisture and dust etc.

By adhering to these guidelines, manufacturers can ensure that their **geotextile products** meet consumer demands for robust and sustainable solutions in pavement construction, ultimately enhancing road safety and longevity.