



Indian Standard IS 17374:2020-Geosynthetics — Reinforced HDPE Membrane for Effluents and Chemical Resistance Lining — Specification

The product described in IS 17374:2020 is a Reinforced High-Density Polyethylene (HDPE) Membrane designed for effluent and chemical resistance lining. It is used in various applications, including waste disposal sites, sewage ponds, and industries like oil exploration, dairy, sugar, pharmaceuticals, distilleries, agrochemicals, and mining. Its primary purpose is to provide an impermeable barrier to contain hazardous liquids and chemicals, preventing contamination of the surrounding environment.

Key desirable properties of the membrane include high UV resistance, chemical resistance, mechanical strength, and durability. It is laminated with Low-Density Polyethylene (LDPE) or a blend of LDPE and Linear Low-Density Polyethylene (LLDPE) and is reinforced to ensure robustness. The material is available in different types based on thickness and mass, ranging from 0.3 mm to 2.0 mm.

The required tests for this product include assessments of thickness, mass, tensile strength, tear resistance, puncture resistance, seam strength, UV resistance, chemical resistance, hydrostatic resistance, and low-temperature crack resistance. These tests ensure the membrane's performance under various environmental and mechanical conditions.