IS 15909: 2020
PVC Geomembranes for Lining — Specification
(*Second Revision*)

PVC geomembranes are versatile materials used extensively for lining applications in canals, ponds, reservoirs, landfills, and industrial waste containment systems. Their benefits include **excellent seepage control**, **long-lasting durability**, and **resistance to environmental factors** like UV exposure and chemical degradation. These features make them ideal for civil engineering projects and waterproofing purposes, ensuring sustainability and reduced maintenance. PVC geomembranes are versatile materials used for seepage control, hazardous waste management, and waterproofing.

Based on the end-use applications of PVC geomembrane, this standard specifies requirements for **Category A (**based on thickness **type I to V)** and **Category B (**based on thickness **type VI to VIII)**. Category A includes geomembranes for applications like lining canals, ponds, reservoirs, and landfills for seepage control, hazardous waste management, solid waste containment, industrial effluent containment, and waterproofing for basements, roofs, and terraces. Category B covers PVC geomembranes for unexposed applications in large underground civil structures, such as basements, road underpasses, rail/road tunnels, bunkers, dams, and other large-scale civil projects. They are also suitable for waterproofing unexposed roofs and terraces.

The standard prescribes essential physical and performance requirements, including thickness, specific gravity, tensile strength and elongation, tear strength, puncture resistance, hydrostatic pressure resistance, dimensional stability, chemical resistance, flammability resistance etc.