



## **IS 17728: 2021 Agro Textiles — High Density Polyethylene (HDPE) Laminated Woven Lay Flat Tube and Fittings for use in Rain Irrigation System — Specification**

**Rain irrigation system provides** continuous distribution of water from perforated lay flat tube with 180° angle covering, provides uniform distribution and 100 percent humidity and fast capability to irrigate the field with drizzle like rain. Rain irrigation system is widely used for closely spaced crops like onion, vegetable crops, leafy vegetables etc. This system is comparatively less in weight, flexible and easy to maintain and also helps in water saving as compared to other irrigation systems.

**HDPE laminated lay flat tubes** used in Rain Irrigation System for water distribution in agricultural fields, offers a **durable, flexible, and cost-effective solution for irrigation**. The HDPE material ensures high strength and resistance to environmental factors like UV radiation, moisture, and chemicals, making it suitable for long-term agricultural applications.

Customers expect these irrigation tubes to be easy to install, move, and lay flat across fields without excessive resistance, ensure efficient water flow, prevent leaks, minimize wastage, withstand the pressure of water distribution and mechanical stresses during use, resist damage from fertilizers, pesticides, and other chemicals typically used in agriculture and be compatible with fittings.

**IS 17728:2021** covers the **design, material, construction, and testing of the tubes and fittings** to ensure that HDPE laminated woven lay flat tubes and fittings used in irrigation systems are durable, flexible, and capable of withstanding the rigors of agricultural use, offering reliable water distribution and reducing wastage. The standard emphasizes quality, performance, and compatibility, making it a vital reference for manufacturers and users in the agricultural sector.

The Ministry of Textiles, Quality Control Order, 2023 mandates that **(HDPE) Laminated Woven Lay Flat Tube for use in Rain Irrigation System** shall conform to IS 17728:2021 and bear Standard Mark under a licence from BIS.