PE Corrugated Piping System for Sewerage

The biggest concern facing communities with a deteriorating sewage system is the cost of installation and surface disruption.

PE Corrugated pipes are an ideal blend of structural strength and flexibility that servers well in buried or unburied conditions.

PE itself is an extremely versatile piping material with many properties that makes ideal for use in underground and above ground conduit systems. The lightweight PE allows for easier and less costly transportation and installation cost. Not brittle or rigidly hard, it is not easily susceptible to cracking during pipe handling and installation activities. Once formed in to a corrugated pipes, PE pipe is resistant to abrasion, corrosion, chemical scouring and is structurally strong with the ability to support large loads. PE corrugated pipe is a flexible piping system that performs well in both high cover and low cover applications. Its unique ability to support and distribute live and dead load enables it to meet almost every installation conditions.

Polyethylene Pipe promises to be a long-term and cost effective solution to this problem. It is well suited for a wide range of sewage applications in all sorts of circumstances. Its inherent physical characteristics make it impervious to the extremely aggressive and corrosive materials associated with sewage systems.

Technical specifications

Range

- Single/Double Wall Corrugated (SWC/DWC) - OD/ID (mm)

63/52, 75/62, 90/77, 120/106, 125/103, 180/153, 200/173, 250/215

Available in Light, Normal and Medium class with separate coupler.

- Double Wall Corrugated (DWC) - Nominal Internal Dia.(mm)

135, 250, 300, 400, 500.

Available in SN 4, 6 and 8 with integral socket.

Standards • IS 16098 (Part 2)

Length Available in straight lengths of 6/12 meters for all sizes and in coils upto 125 mm OD in defferent colours.

Applications
- Sewerage System
- Underground Gravity Piping System
- Rain Water Disposal system under tracks in the Metro-Rails and high way Road Bridges.

Test Parameters as per IS: 16098(2):2013

Property	Unit	Value
Base density of PE Granules	Kg/m³	≥ 930
MFR @ 190°C and 5 kg load of PE Granules	g/10 min	≤ 1.6
OIT of PE resin @ 200°C	Minutes	≥ 20
Resistance to internal Pressure for PE material in pipe form*		No failure during test period
	MPa	
80°C & 165 hrs Duration	for Circum-ferential stress	4.0
80°C & 1000 hrs Duration	selected	2.8
Resistance to heating (Oven Test) at 110°C		The pipe shall show no delamination, cracks or bubble
Wall thickness ≤ 8mm	Minutes	30
Wall thickness > 8mm	Minutes	60
Impact Strength	TIR	≤ 10%
Ring Stiffness	-	≥ relevant SN
Ring Flexibility	-	Pass the 30% deflection position Test
Water tightness test @ 0.5 bar for 1 minute	-	No leakage
Water tightness of elastomeric ring seal joint @ 0.05 bar with joint deflection		
d ≤ 315 mm - 2.0 deg.		No leakage
315 mm < d < 630 mm – 1.5 deg.		No leakage

** This test shall be carried out in the form of a solid wall pipe made from the relevant grade of material.*

HDPE Pipe used in Sprinkler Irrigation System

Jain Sprinkler Irrigation System