

OPTIFLUX[®]

Oriented Unplasticized Polyvinyl Chloride
(PVC-O) Pipes
Meets Indian Standard : IS-16647:2017



DESCRIPTION :



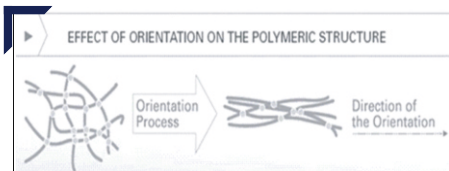
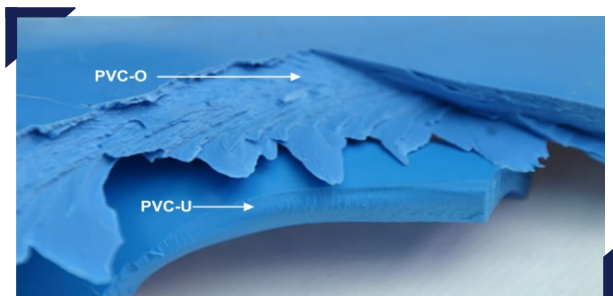
Optiflux PVC-O Pipes are the strongest, toughest & most flexible pipes for the conveyance of water under pressure, best suited for underground applications. With a number of exceptional features, Optiflux PVC-O Pipes are made in accordance with Indian Standard IS -16647: 2017. These pipes are available in pressure class PN 12.5, PN 16 & PN 25 in sizes ranging from 110 mm to 630 mm. These pipes have an effective length of 6 meters.

APPLICATIONS :

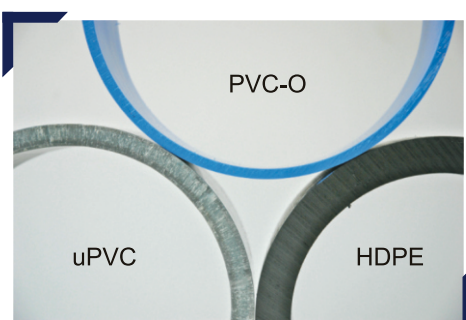
PVC-O Pipes have been developed specifically for drinking water pressure distribution applications. These pipes can also be used for other non-potable water applications like waste water, reclaimed water, irrigation, sewerage, fire protection nets, infrastructure nets and other industrial applications.

Technology

OPTIFLUX PVC-O pipes use a revolutionary new technology which orients the PVC molecules both in the axial and circumferential directions (bi-axial orientation). The orientation process is carried out by stretching the initial extruded uPVC Pipe (Pre-form) under precise and controlled conditions of pressure and temperature. This process orients (preferably aligns & lengthens) the polymer molecules; which significantly increases strength of the material.



Biaxially Oriented PVC Pipes were discovered many years ago, and the most common application is potable water distribution under pressure. Molecular, orientation results in an exceptionally tough, high performance thermoplastic pipe with greatly enhanced physical and mechanical characteristics, increased hydraulic capacity, greater impact resistance, higher strength, elasticity & ductility, improved fatigue resistance, better creep behaviour and reduced weight as compared to other pipes. The ultimate tensile strength and impact resistance of PVC-O pipe is up to four times that of conventional uPVC pipe and equivalent to that of Ductile Iron pipe. OPTIFLUX PVC-O Pipe is the high-performance, cost-effective pipe material choice for pressure water distribution applications.



ADVANTAGES :

■ High-Tech Manufacturing Mechanism

PVC-O Pipes are manufactured by a revolutionary new molecular orientation process which orients the PVC molecules and imparts strength.

■ No Extra Filler Content

The perform pipe must be flawless in order to survive the expansion process, the process acts as its own quality control.

■ Unbeatable Impact Resistance

Molecular orientation give PVC-O pipes layered structure which results in higher impact strength as compared to other pipes. PVC-O pipes are virtually impossible to destroy by impact.

■ Lower Pumping Cost

Due to smooth surface and larger inner diameter of PVC-O pipes the pumping cost is about 20% lower than the Ductile Iron pipes.

PRODUCT DESCRIPTION :

Pipe Sizes– 110 mm to 630 mm

Pressure Rating- PN-12.5, PN-16 & PN-25

Minimum Required Strength (MRS) - 50 Mpa

Class - 500

Overall Service Coefficient (C) - 1.4

Design Stress (σ) - 36MPa

Classification of material

OPTIFLUX PVC-O pipe are manufactured with MRS - 50 (Minimum Required Strength) with C - 1.4 (Co-efficient)

	PN 12.5	PN 16	PN 25
Material Class	500	500	500
Nominal Pressure in (bars)A	12.5	16	25
Burst Pressure Over 50 Hours (Bars)A	17.5	22.4	35
Burst Pressure Over 10 Hours (Bars)A	25	30	48
Stiffness(kN/m2)	>5	>7	>20

(A) At 20°C

Dimensions

Nominal Dia. (DN)	Outside Dia. (OD) mm		Min. Wall Thickness (e) MRS 50 mm		
	Min.	Max.	PN 12.5	PN 16	PN 25
MM					
110	110.0	110.4	2.0	2.6	4.0
160	160.0	160.5	2.9	3.7	5.8
200	200.0	200.6	3.6	4.6	7.2
250	250.0	250.8	4.5	5.8	9.0
315	315.0	316.0	5.7	7.2	11.4
355	355.0	356.1	6.4	8.2	12.8
400	400.0	401.2	7.2	9.2	14.4
450	450.0	451.4	8.3	10.3	16.2
500	500.0	501.5	9.2	11.4	18.0
630	630.0	631.9	11.6	14.4	22.7

For use of OPTIFLUX Pipes in India pipe are supplied in 6.0 Meters including length of Socket.