



CABLE DUCTS Your Lifeline to Prosperity





JAIN SILICOAT™ PE DUCT

Jain Silicoat™ PE Duct is extruded from selected high quality virgin HDPE material and co-extruded with special lubricant that is distributed uniformly along the entire inner surface of the duct providing a low friction smooth surface for easy cable drawing or blowing. The outer HDPE shell makes the pipe more tough and durable and enables the duct to withstand the pressure during HSAB of cable as well as retains the roundness under soil pressure and traffic load.

Jain Silicoat™ PE Ducts Conform to BSNL Specification and has Type Approval Certificate.

Standard dimensions (OD/ID)	OD (mm)	Wall thickness (mm)	Inner Layer Thickness (mm)	Tensile Strength(Min)	Co-efficient of friction
50/42 mm	50±0.5	4.0±0.3	0.35 to 0.51	20 MPA	<0.06
40/33 mm	40±0.4	3.5±0.2	0.28 to 0.42	20 MPA	<0.06
32/26 mm	32±0.3	3.0±0.2	0.24 to 0.36	20 MPA	<0.06

Salient features

Concentric layers of tough HDPE outer shell co-extruded with an inner layer of solid special Lubricant.

Available in Orange, Blue, Green, Yellow, Red, Brown, Purple, Grey and Black colours. Other colours on demand.

Available in coils of 250, 500 and 1000 metres Coils of 2000 and 3000 metres & Duct Wound on wooden/steel drums can be made available on demand.

Every metre of duct in the coil marked with progressive measurement.

Ducts with pre-inserted rope for pulling OFC cable available on demand

Pressurized Duct coils with air pressure up to 1 kg/cm² is available.

Duct coils are supplied with end seals

Requisite accessories like Push-fit coupler, End Plug, Cable Sealing Plug, Duct Cutter, Spanner etc. available.

Blowing of cables can be undertaken on request.

Advantages

Low co-efficient of friction for easy, safe and fast installation of OFC by High Speed Air Blowing without damage to duct. Can withstand blowing pressure of 140 to 150 psi. Cables can be removed and re-blown number of times.

Easy identification of cables installed.

Reduces the joints in the network. Reduced cost of installation and time.

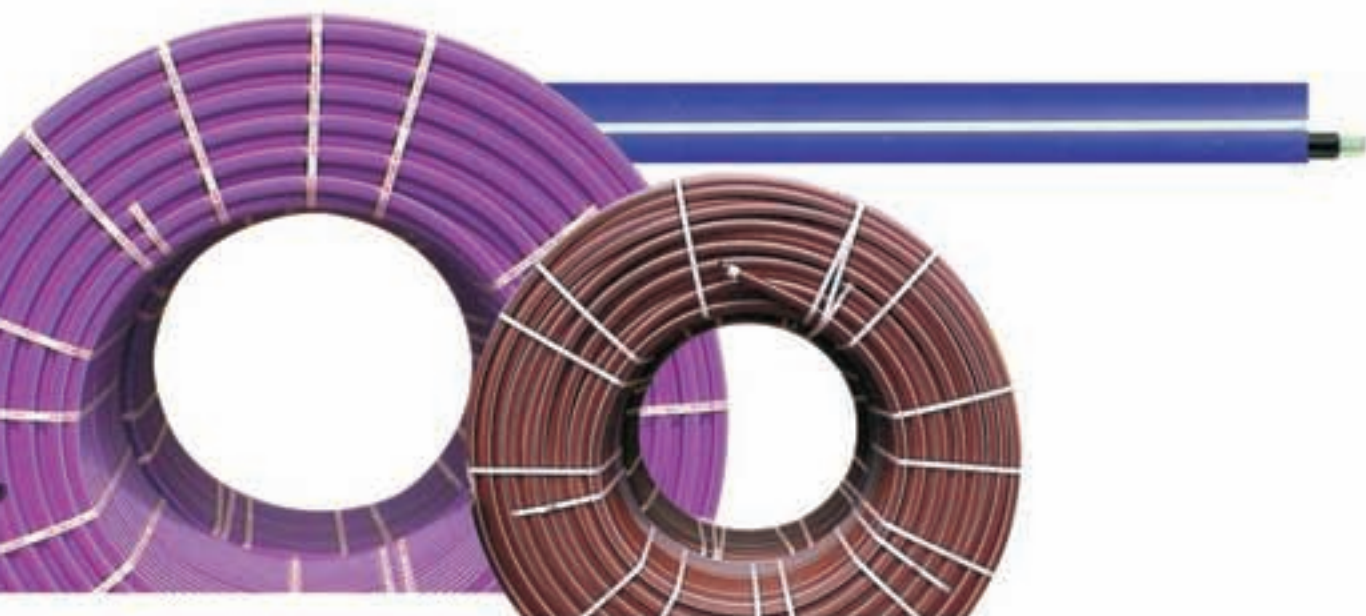
Ensures accurate installation and measurement.

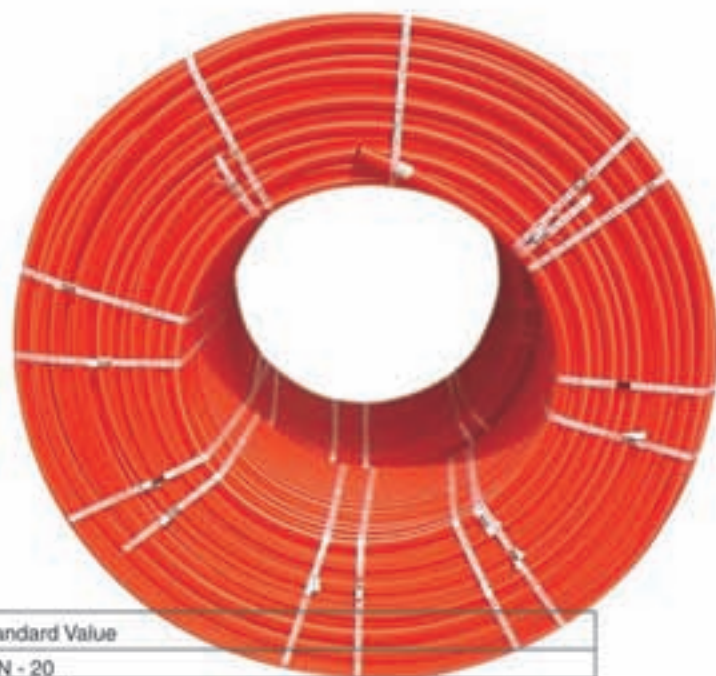
Provides an alternative to HSAB of cable when equipment and expertise not available with the provider.

This helps easy identification of damaged ducts prior to installation to avoid trouble in cable blowing.

The end seals prevent dirt, soil & reptiles entreing the duct during duct laying and safe guards duct till cable blowing.

Enhances speed & ensures safe, easy & quality installation.

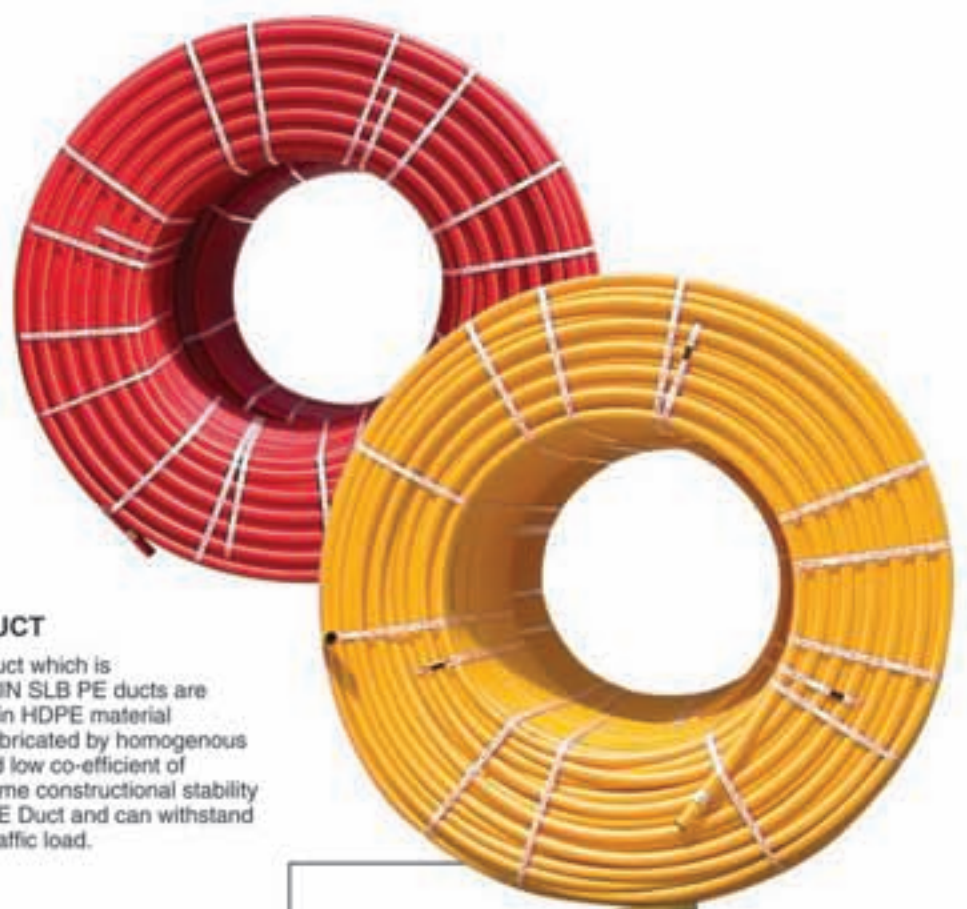




Performance Parameters

Test	Unit	Standard Value	
Tensile Strength	N/MM2	MIN - 20	
Elongation	%	MIN - 500	
Reversion	%	+ 3	
E S C R (As per ASTM D-1693)	96 Hours	Sample should not crack during test period	
Impact Strength	Kg	The duct shall not crack or split (At 10 Kg. Load)	
Crush Resistance	The Deflection with Load	%	< 10
	The Deflection after Recovery	%	< 2
Mandrel Test		The Mandrel shall be passed freely through a 5 mtr length of duct, when the duct is bent to a radius of 5mtrs.	
Oxidation Induction Test	Minutes	> 30	
Internal Coefficient of Friction		Not more than 0.06	
Melt Flow Rate (at 5 kg, 190° C)	gm/10min	0.2 to 1.1	
Density (Finish Product)	gm/cc	0.940 To 0.958	
Hydraulic Characteristics At Temp 80°C		The Sample shall not show sign of localised swelling or leakage & shall not burst during the test period.	
Ash Content	%	0.3 Max	





JAIN SELF LUBRICATED PE DUCT

Jains now manufacture Jain SLB PE Duct which is the latest innovation from their R&D. JAIN SLB PE ducts are manufactured with high performing virgin HDPE material with the inner surface of the duct self lubricated by homogenous construction to give a smooth finish and low co-efficient of friction. Jain SLB PE Ducts have the same constructional stability and strength as that of Jain Silicoat™ PE Duct and can withstand the pressure during HSAB as well as traffic load.

JAIN RIBBED WALLED DUCT

Jain Ducts can also be supplied with inner lubricate area in ribbed form. Ribbed wall is ideal for pulling or jetting cable, thus reducing surface contact with cable during installation. It is available in various sizes and colours.



Jain HDPE Ducts available from 32mm to 560mm diameter conforming to IS: 4984-1995. Approved by BSNL under TEC specification G/CDS-08/02 November 2004. Approved vendor and supplier to BSNL, PGCIL, IOCL, GSPL, MTNL, TTSL, HUTCH, ALCATEL and can deliver as per specific requirement. Supplied in coils of various lengths up to 110mm. Supplied with pre-inserted PP rope on request.



JAIN ANTI RODENT PE DUCTS

Jain Anti-Rodent Duct Features and Specifications Ducts are generally installed by direct burial method. At many places rodents are present more than one meter below ground level. Unlike human beings the front teeth of rodents grow throughout their life, hence to trim them, they chew soft materials like PE & PVC pipes to keep their teeth within size. This results in damage to the pipes & the cable in it. Jain anti rodent ducts provides the best solution to such problems by incorporating a bitterant in the pipe to dissuade rodents from chewing it. Antirodent ducts are tested at Institute for Toxicological Studies, Pune for its antirodent properties. Antirodent ducts are available in various sizes starting from 32mm onwards.



JAIN FIRE RETARDANT DUCT

Our constant endeavour is to bringing better products to our valued customers. We are pleased to introduce Jain Fire Retardant Ducts manufacture as per UL94-V2 specification. A State of art testing facility is available inhouse (flame chamber from Atlas, USA) for conducting the fire retardant test.





JAIN PE PLAIN DUCT

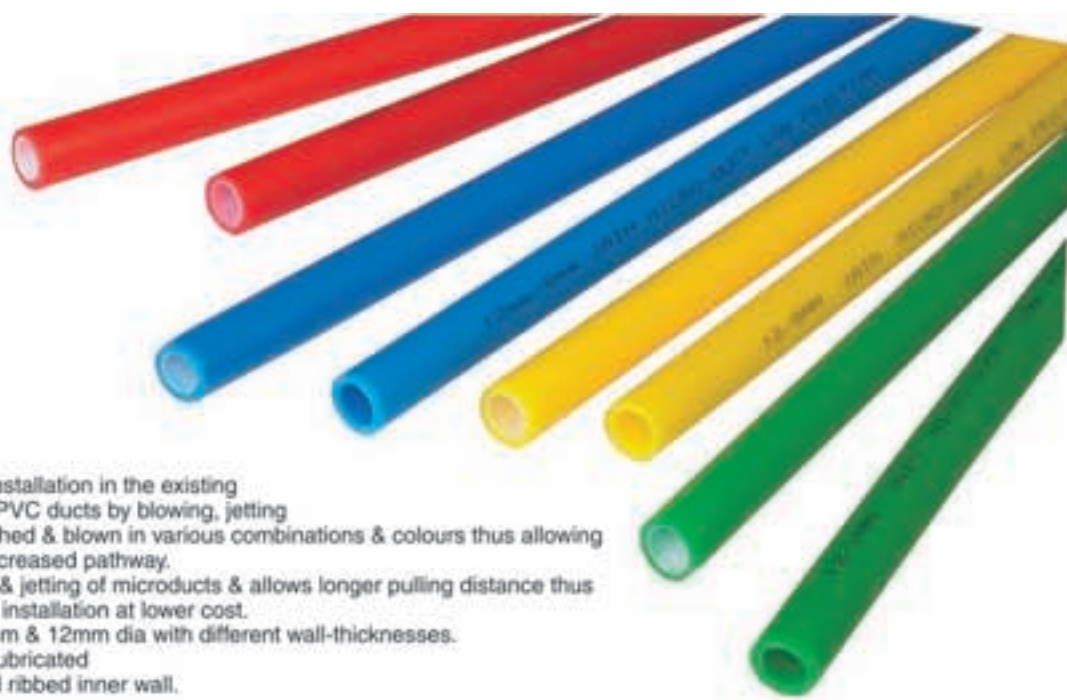
Salient Features

Tough and durable ● Jain HDPE Duct Available from 32 mm to 315 mm diameters conforming to IS:4984-1995. Supplied in coils of various lengths upto 110 mm diameter ● Requisite specials such as Couplers, Bends, Tee etc. available for easy installation ● Used for main ducts, Cable conduits, Road crossings etc Conforming to BSNL / TEC Specification G/CDS-05/01 Dec. 94 with Amendment No.1 and having valid Type Approval is also available.

IS-4984-1995

Size (OD) mm	Tol+ mm	Wall Thickness (in mm)					
		Class - I		Class - II		Class - III	
		Min	Max	Min	Max	Min	Max
32	0.3	-	-	-	-	2.3	2.7
40	0.4	-	-	2.0	2.4	2.8	3.3
50	0.5	-	-	2.4	2.9	3.5	4.1
63	0.6	2.0	2.4	3.0	3.5	4.4	5.1
75	0.7	2.3	2.7	3.6	4.2	5.3	6.0
90	0.9	2.8	3.2	4.3	5.0	6.3	7.2
110	1.0	3.4	3.9	5.3	6.0	7.7	8.7
125	1.2	3.8	4.4	6.0	6.8	8.8	9.8
140	1.3	4.3	4.9	6.7	7.6	9.8	11.0
160	1.5	4.9	5.6	7.7	8.6	11.2	12.5
180	1.7	5.5	6.2	8.6	9.7	12.6	14.1
200	1.8	6.1	6.9	9.6	10.7	14.0	15.6
225	2.1	6.9	7.7	10.8	12.0	15.7	17.5
250	2.3	7.6	8.6	11.9	13.3	17.5	19.4
280	2.6	8.5	9.6	13.4	14.9	19.6	21.7
315	2.9	9.6	10.7	15.0	16.7	22.0	24.4





Jain Micro Duct

Jain Micro Ducts are specifically made for installation in the existing (new or old, empty or preoccupied) HDPE/ PVC ducts by blowing, jetting or pulling technique. The ducts can be bunched & blown in various combinations & colours thus allowing extra channels for future cabling needs & increased pathway. Its low sliding friction aids in easier blowing & jetting of microducts & allows longer pulling distance thus increasing duct integrity resulting in quality installation at lower cost. Jain Micro Ducts are available in 7mm, 10mm & 12mm dia with different wall-thicknesses. Microducts are available with permanently lubricated smooth inner wall or permanently lubricated ribbed inner wall.

Micro Duct Dimentions (in mm)

Size	OD	Tolerance	Wall Thickness	Toleranc
7/ 5.5	7	+0.1	0.75	-0.0/+0.1
10/8	10	+0.1	1.0	-0.0/+0.1
10/5.5	10	+0.1	2.25	-0.0/+0.3
12/10	12	+0.1	1.0	-0.0/+0.1

Technical specifications for micro duct.

Property	Method of Test	Standard Value
Internal Coefficient of mction	Bell Core GR-356	<0.1
Density	ASTMD 1505	940 to 958 kg/m ³
Melt Flow Index	IS 2530	0.2 to 1.1 gms/10min @ 190°C on 5 kg load
Duct Stiffness	ASTMD2415	>23000 Kpa @ 15% Deflection





Jain PVC Cable Duct

Smooth inside and outside walls for quick laying and easy drawing of cables.

Non-corrosive and resistant to many chemicals and chemically active soils.

High tensile strength and modulus of elasticity to absorb Thermal and Mechanical shocks.

Complete range of accessories to suit different standards.

Quality accepted and approved by all reputed organisations like BSNL, MTNL, TCIL, HCL Lucent, Reliance, etc.

Conforming to BSNL/DOT specification G/CDS-03/02 Dec' 94 and having valid Type Approval.

Available in colours like White, Grey & Black, as per customer's requirement.

Other sizes can be manufactured on demand.

Specifications for Jain PVC Cable Ducts

Standard	Type	Nominal Dia.	Outer Dia.		Wall Thickness		Min. Socket Length
			Min.	Max.	Min.	Max.	
BSNL/	A	110	110.0	110.5	2.5	2.8	61.0
MTNL	B	110	110.0	110.5	3.2	3.5	61.0
	C	50	50.0	50.3	1.9	2.0	31.0

All dimension in mm

Physical Properties for Jain PVC Cable Duct

Property	Unit	Value
Tensile Strength	kg/cm ² at 20° - 400 C	>400
Elongation	%	>30%
Vicat Softening Temp.	°c	80
Heat Reversion	%	+5
Opacity	%	0.2 max.

Jain PVC Pipes

Available from 20mm to 560 mm dia.

Pipes can also be supplied as per IS:4985-2000.

Pipes can also be supplied as per IS:12818-1995.

Used for main duct / road crossings etc.

Rubber ring joints available for use in marshy land.

All types of specials available for easy installation.





Jain Irrigation Systems Ltd. today is one of the largest polymer processors in India of PVC, PE, PP, PS along with engineering polymers like Polycarbonate, Polyacetal, Polyimide, PBT, ABC, etc totaling to over 100,000 M.T.s are being extruded or injection moulded every year.

We produce and export a complete range of Micro Irrigation Systems with its components, PVC, PE Piping Systems and fittings, PVC and Polycarbonate Sheets, Processed Foods and Dehydrated Vegetables, to more than 50 countries worldwide.

JAINS have come a long way since 1978 having received 3 International awards, 91 National awards and 33 state awards for outstanding performance in exports, R & D, Fair Business Practices, Entrepreneurship, etc.

Excel Sheets, a registered brand in the world market since 1990 is manufactured by Jain Irrigation Systems Limited in their state of the art facility at Jalgaon, India. JAINS are today, the only manufacturer of PVC and Polycarbonate Sheets under one roof in South East Asia. The manufacturing facility is ISO 9001:2000 certified by RWTUV Germany.

Our products are specially formulated at our well equipped in-house R & D facility. This R&D facility is also used for perfecting new product development and new applications coming up from interaction with our customers and end users. Superior quality with prompt customer service, has assured JAINS a committed customer support in the global markets since the last 26 years.



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