



OM OPTEL
INDUSTRIES PVT. LTD.



OM KOTHARI
GROUP OF COMPANIES



COMPANY PROFILE

Om Optel Industries Pvt. Ltd. is an ISO 9001:2015 company and has a state of art manufacturing facility for Optical Fibre Cable (OFC) ranging 2F to 144F and other special cables.

- The ultra modern plant is strategically located at Mandideep, Madhya pradesh.
- The plant consists of the most modern machinery for manufacturing OFC and other special cables.
- We aim to provide the best quality OFC and innovative cable design as per customer/application requirement.
- We maintain worldclass performance by using latest technologies and insertions thus, contributing to global connectivity.

HDPE PIPES & COILS

IS: 4984:1995

It is made of either of three grades of High Density Poly Ethylene polymers. i.e PE-63, PE-80 or PE-100

PRODUCT RANGE

These HDPE pipes are available in sizes 20 mm to 450 mm in pressure rating of PN-2.5, PN-4.0, PN-6.0, PN-8.0, PN-10.0, PN-12.5 & PN-16.0 in all three grades PE-63, PE-80 and PE-100.

APPLICATIONS

EFFLUENT AND WASTE WATER DISPOSAL

Effluents of varied chemical compositions can be effectively disposed of using OM OPTEL pipes & coils, with the aid of the latest know-how on piping engineering, pipelines for waste collection and disposal in chemical industry. Longevity of OM OPTEL pipes under such application would rate the best amongst the conventional pipe even under critical service conditions.

DOMESTIC GAS DISTRIBUTIONS

Earlier, engineers always carried a psychological fear in using HDPE pipes rather plastic pipes for conveyance of inflammably gases. However experiments and extensive trials proved these fears totally wrong and have established excellence of performance of HDPE pipes for conveyance of all type of combustible gases. Experiments have also proved that the permeable losses are insignificant in regard to safety and environmental impact.

SUBMARINE PIPELINES

One of the most important applications where all salient features of OM OPTEL pipes prominently figure out is for under water pipelines. OM OPTEL pipes have been successfully laid for under water river crossing, creek crossing, marine out-falls and for brine intake lines in the open sea. Hazardous chemical effluents and radioactive wastes are being harmlessly disposed into deep sea through OM OPTEL pipes with substantial cost savings. Schemes which would have been dropped due to economical unviability have been made feasible with OM OPTEL pipes.



PROPERTIES

- Economical than traditional pipe material.
- Resistance to chemicals- Exceptional resistance to all external and internal corrosion.
- Resistant to electrolytic corrosion.
- Will not rust or rot.
- Welded joints speedup installation- Trench widths reduced which leads to saving in the cost of excavation and back filling.
- Light weight - One sixth of the weight of steel. Low specific gravity giving an outstanding light weight product for easy transportation, handling, fitting etc.
- Very good thermal insulation due to low thermal conductivity.
- Smooth bore provided less head loss. Flow resistance is approximately 30 % less than that of conventional pipes, permitting the use of a smaller bore pipe for a given rate of flow.
- Perfect stability of material obviates the risk of ageing.
- Total neutrality to products conveyed.
- Flame resistance classifying the material as self extinguishing according to test standard employed.
- Low maintenance cost.
- Easy to install.
- Longer life than G.I, M.S cement and other pipes.

WALL THICKNESS OF PIPES (PE-63) FOR PRESSURE RATINGS OF IS:4984-1995

DIA	PN 2.5		PN 4		PN 6		PN 8		PN 10		PN 12.5		PN 16	
DN	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
20	-	-	-	-	-	-	-	-	2.3	2.8	2.8	3.3	3.4	4.0
25	-	-	-	-	-	-	2.3	2.8	2.8	3.3	3.4	4.0	4.2	4.9
32	-	-	-	-	2.3	2.8	3.0	3.5	3.6	4.2	4.4	5.1	5.4	6.2
40	-	-	2.0	2.4	2.8	3.3	3.7	4.3	4.5	5.2	5.5	6.3	6.7	7.6
50	-	-	2.4	2.9	3.5	4.1	4.6	5.3	5.6	6.4	6.8	7.7	8.4	9.5
63	2.0	2.4	3.0	3.5	4.4	5.1	5.8	6.6	7.0	7.9	8.6	9.7	10.5	11.8
75	2.3	2.8	3.6	4.2	5.3	6.1	6.9	7.8	8.4	9.5	10.2	11.5	12.5	14.0
90	2.8	3.3	4.3	5.0	6.3	7.2	8.2	9.3	10.0	11.2	12.2	13.7	15.0	16.7
110	3.4	4.0	5.3	6.1	7.7	8.7	10.0	11.2	12.3	13.8	14.9	16.6	18.4	20.5
125	3.8	4.4	6.0	6.8	8.8	9.9	11.4	12.8	13.9	15.5	16.9	18.8	20.9	23.2
140	4.3	5.0	6.7	7.8	9.8	11.0	12.8	14.3	15.6	17.4	19.0	21.1	23.4	26.0
160	4.9	5.6	7.7	8.7	11.2	12.6	14.6	16.3	17.8	19.8	21.7	24.1	26.7	29.6
180	5.5	6.3	8.6	9.7	12.6	14.1	16.4	18.3	20.0	22.2	24.4	27.1	30.0	33.2
200	6.1	7.0	9.6	10.8	14.0	15.6	18.2	20.3	22.3	24.8	27.1	30.1	33.4	37.0
225	6.9	7.8	10.8	12.1	15.7	17.5	20.5	22.8	25.0	27.7	30.5	33.8	37.5	41.5
250	7.6	8.6	12.0	13.4	17.5	19.5	22.8	25.3	27.8	30.8	33.8	37.4	41.7	46.1
280	8.5	9.6	13.4	15.0	19.6	21.8	25.5	28.3	31.2	34.6	37.9	41.9	46.7	51.6
315	9.6	10.8	15.0	16.7	22.0	24.4	28.7	31.8	35.0	38.7	42.6	47.1	52.5	58.0
355	10.8	12.1	17.0	18.9	24.8	27.9	32.3	35.8	39.5	43.7	48.0	53.0	59.2	65.4
400	12.2	14.3	19.1	22.2	28.0	32.4	36.4	42.1	44.5	51.4	54.1	62.6	-	-

WALL THICKNESS OF PIPES (PE-80) FOR PRESSURE RATINGS OF IS:4984-1995

DIA	PN 2.5		PN 4		PN 6		PN 8		PN 10		PN 12.5		PN 16	
DN	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
20	-	-	-	-	-	-	-	-	-	-	2.3	2.8	2.8	3.3
25	-	-	-	-	-	-	-	-	2.3	2.8	2.8	3.3	3.5	4.1
32	-	-	-	-	-	-	2.4	2.9	3.0	3.5	3.6	4.2	4.5	5.2
40	-	-	-	-	2.3	2.8	3.0	3.5	3.7	4.3	4.5	5.2	5.6	6.4
50	-	-	2.3	2.8	2.9	3.4	3.8	4.4	4.6	5.3	5.6	6.4	6.9	7.8
63	-	-	2.5	3.0	3.6	4.2	4.7	5.4	5.8	6.6	7.0	7.9	8.7	9.8
75	-	-	2.9	3.4	4.3	5.0	5.6	6.4	6.9	7.8	8.4	9.5	10.4	11.7
90	2.3	2.8	3.5	4.1	5.1	5.9	6.7	7.6	8.2	9.3	10.0	11.2	12.5	14.0
110	2.7	3.2	4.3	5.0	6.3	7.2	8.2	9.3	10.0	11.2	12.3	13.8	15.2	17.0
125	3.1	3.7	4.9	5.6	7.1	8.1	9.3	10.5	11.4	12.8	13.9	15.5	17.3	19.3
140	3.5	4.1	5.4	6.2	8.0	9.0	10.4	11.7	12.8	14.3	15.6	17.4	19.4	21.6
160	4.0	4.6	6.2	7.1	9.1	10.3	11.9	13.3	14.6	16.3	17.8	19.8	22.1	24.6
180	4.4	5.1	7.0	7.9	10.2	11.5	13.4	15.0	16.4	18.3	20.0	22.2	24.9	27.6
200	4.9	5.6	7.7	8.7	11.4	12.8	14.9	16.6	18.2	20.3	22.3	24.8	27.6	30.6
225	5.5	6.3	8.7	9.8	12.8	14.3	16.7	18.6	20.5	22.8	25.0	27.7	31.1	34.5
250	6.1	7.0	9.7	10.9	14.2	15.9	18.6	20.7	22.8	25.3	27.8	30.8	34.5	38.2
280	6.9	7.8	10.8	12.1	15.9	17.7	20.8	23.1	25.5	28.3	31.2	34.6	38.7	42.8
315	7.7	8.7	12.2	13.7	17.9	19.9	23.4	26.0	28.7	31.8	35.0	38.7	43.5	48.1
355	8.7	9.8	13.7	15.3	20.1	22.4	26.3	29.2	32.3	35.8	39.5	43.7	49.0	54.1
400	9.8	11.5	15.4	18.0	22.7	26.4	29.7	34.4	36.4	42.1	44.5	51.4	55.2	63.7

WALL THICKNESS OF PIPES (PE-100) FOR PRESSURE RATINGS OF IS:4984-1995

DIA	PN 6		PN 8		PN 10		PN 12.5		PN 16	
DN	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
20	-	-	-	-	-	-	-	-	2.3	2.8
25	-	-	-	-	-	-	2.3	2.8	2.9	3.4
32	-	-	-	-	2.4	2.9	2.9	3.4	3.7	4.3
40	-	-	2.4	2.9	3.0	3.5	3.7	4.3	4.6	5.3
50	2.3	2.8	3.0	3.5	3.7	4.3	4.6	5.3	5.7	6.5
63	2.9	3.4	3.8	4.4	4.7	5.4	5.7	6.5	7.1	8.8
75	3.5	4.1	4.5	5.2	5.6	6.4	6.8	7.7	8.5	9.6
90	4.1	4.8	5.4	6.2	6.7	7.6	8.2	9.3	10.2	11.5
110	5.0	5.7	6.6	7.5	8.1	9.2	10.0	11.2	12.4	13.9
125	5.7	6.5	7.5	8.5	9.2	10.4	11.3	12.7	14.1	15.8
140	6.4	7.3	8.4	9.5	10.3	11.6	12.7	14.2	15.8	17.6
160	7.3	8.3	9.6	10.8	11.8	13.2	14.5	16.2	18.1	20.2
180	8.2	9.3	10.8	12.1	13.3	14.9	16.3	18.2	20.3	22.6
200	9.1	10.3	12.0	13.4	14.8	16.5	18.1	20.2	22.6	25.8
225	10.3	11.6	13.5	15.1	16.6	18.5	20.4	22.7	25.4	28.2
250	11.4	12.8	15.0	16.7	18.4	20.5	22.6	25.1	28.2	31.3
280	12.8	14.3	16.8	18.7	20.6	22.9	25.3	28.1	31.6	35.0
315	14.4	16.1	18.9	21.0	23.2	25.8	28.5	31.6	35.5	39.3
355	16.2	18.1	21.2	23.6	26.2	29.1	32.1	35.6	40.0	42.2
400	18.2	21.2	23.0	27.7	29.5	34.2	36.2	41.9	45.1	52.1

HDPE SPRINKLER PIPE

IS: 14151-1999 (PART I & PART II)



Agronomists all over the world believe that the sprinkler irrigation system is the best method to get maximum yield at an extremely low cost. Using sprinkler system can irrigate 2 to 3 time more farm land with same quantity of water. The sprinkler system cleans the surface of the plants, which help in easy photosynthesis thus making plants able to produce more. It save from irregularities of the weather. In winters it saves from freezing of water. In summers it saves evaporation of water up to 40 %. The Sprinkler effect (like rain) saves water from flowing away and maximum water reaches to the roots of the plants. It spreads water around the farm in equal quantity thus saving plants from bad effects of water clogging and water scarcity. With Sprinkler Irrigation System farming can be done easily on uneven surfaces.

CONSTRUCTION

HDPE High Density Poly Ethylene is the most popular variety of polymers. OM OPTEL sprinkler pipe is made of HDPE plastic material. It is the recommended material for the manufacture of high pressure pipes and is renowned world wide for its reliability. The characteristic that makes it outstanding are its toughness, its resistance to chemical attack and its immunity to weather conditions. This makes it an excellent material to convey water.

PRODUCT RANGE

OM OPTEL sprinkler pipes are available in 63 mm to 200 mm diameter and pressure rating class I, II, III, IV and Part I and part II. PN-2.5 and PN-3.2, PN-4.0, PN-6.0 with complete range of fittings.

PROPERTIES		VALUE
1	M.F.I.(190°C, 5kg load)	0.41 to 1.1gm/10 mins
2	Specified base density	940.4 to 946.4 Kg/mtr 3
3	Material Grade	PE-63, PE-80, PE-100
4	Carbon Blank	(2.5 ± 0.5%)
5	Antioxidant	<0.5% by mass
6	Tensile strength (min) (27 ± 2°C)	19MPa (Testing speed = 100mm/min 10%)
7	Elongation	>350%
8	Reversion	<=3%
9	Hydraulic Characteristics	No sign of localized swelling, leakage or weeping (at 80°C for 165 & 48 hrs.)

DIMENSIONS : (POLYETHYLENE PIPES FOR SPRINKLER IRRIGATION) ALL SIZES IN MM

NOMINAL				WALL THICKNESS							
NOMINAL	OUTSIDE	TOLERANCE ON		CLASS-1 (2.5 KG/CM ²)		CLASS-2 (3.2 KG/CM ²)		CLASS-3 (4 KG/CM ²)		CLASS-4 (6 KG/CM ²)	
DIA	DIA	OUTSIDE	OVALITY	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
40	40.0	+0.4	1.4	-	-	-	-	-	-	2.3	2.8
50	50.0	+0.5	1.4	-	-	-	-	2.0	2.4	2.9	3.4
63	63.0	+0.6	1.5	-	-	2.0	2.4	2.5	2.9	3.8	4.4
75	75.0	+0.7	1.6	2.0	2.4	2.5	2.9	3.0	3.4	4.5	5.2
90	90.0	+0.8	1.8	2.2	2.6	2.9	3.4	3.5	4.1	5.3	6.1
110	110.0	+1.0	2.2	2.7	3.2	3.4	3.9	4.2	4.8	6.5	7.4
125	125.0	+1.2	2.5	3.1	3.6	3.8	4.5	4.8	5.5	7.4	8.3
140	140.0	+1.3	2.8	3.5	4.1	4.3	5.0	5.4	6.1	8.3	9.3
160	160.0	+1.5	3.2	3.9	4.5	4.9	5.5	6.2	7.0	9.4	10.2
180	180.0	+1.7	3.6	4.4	5.0	5.5	6.3	6.9	7.8	10.6	11.2
200	200.0	+1.8	4.0	4.9	5.6	6.1	7.0	7.7	8.7	11.3	13.2

ACCESSORIES

- Coupled Bend
- Coupled Tee
- Pump Connecting Nipple (P.C.N.)
- Sprinkler attachment with Foot Button
- End Caps
- Riser Pipe Sprinkler Nozzle

PLB HDPE DUCTS

BSNL GR.NO-TEC/GR/TX/CDS-008/03 MARCH 2011

OM OPTEL Permanently Lubricated HDPE Ducts are formed by co extrusion technique and are used for laying Optical Fiber Cables as under ground ducting / conduits.

MATERIAL

The base raw material being used for the manufacturing Permanently Lubricated Ducts is High Density Poly Ethylene. The grade of raw material is ultra violet grade and is confirming to IS:7328-1992 & IS : 2523 or ISO : 1183 & ISO : 1133 and is designated as PEELA-50T-012 (CACT Approved) and inner layer permanently lubricated material DOW CORNING grade-50MB002.

APPLICATIONS

Telecommunication, Computer Network, Automatic Signaling, Railways Information Network. Highways, Cable Service Providers, Broad Band networks, Electric cable installation etc.

ADVANTAGES

- Reduction of stress on cable during installation.
- Installation of Longer lengths made feasible.
- Negotiations of cable movement through bends and deflections are easier.
- Reduction of number of joints and minimizes number of splices.
- Faster and easy installation of cable with lesser man power.
- Reduction of overall cost of installation, maintenance and future upgrades.
- Retains it's properties throughout it's life.
- Existing cables can be deployed after de-blowing from the duct.
- This does not have toxic and dermatic hazards and is safe handling.

PROPERTIES

S.NO.	TEST DESCRIPTION	TEST METHOD	TEST REQUIREMENT
1	Dimension (a) Outside diameter (b) Ovality (c) Wall thickness	G/CDS-008/03 March 2011, ISO:3126	As per Table
2	Visual Inspection	G/CDS-008/03 March 2011, ISO:3126	As per Specifications
3	Density at 23° C GMS/CC	IS : 7328, IS : 2330	0.940-0.958
4	Melt Flow Index at 190° C	IS : 7328, ISO : 1133	0.2 to 1.1
5	Tensile Strength at yield	IS : 14151-Part-1, ISO : 6259	Min 20N/mm ²
6	Elongation at Break	IS : 14151-Part-1, ISO : 6259	Min 500%
7	Co-efficient of Friction	IS : 14151-Part-1, ISO : 6259	<0.06
8	Impact Strength	IS : 14151-Part-1, ISO : 6259	No Split or Crack
9	Oxidation Induction time	IS : 14151-Part-1, ISO : 6259	>30 Minutes
10	Environmental Stress & Crack Resistance	ASTMD-1693	No Split or Crack
11	Heat Reversion	IS : 4984	Change < 3%
12	Internal Hydrostatic Pressure creep repture	IS : 4984 & ISO : 1167	Passes

All above mentioned test on PLB HDPE DUCTS are conducted in-house as per DOT Specification No. G/CDS-008/03 March 2011 and ISO : 3126



Figure 1: Various sizes of flexible ducts



ASSOCIATED ACCESSORIES & TOOLS

1	Plastic Coupler	To join two duct lengths- air tight and water tight.
2	End Plug	To seal duct ends prior to the installation of the cable.
3	Cable Sealing Plug	To seal duct ends after insertion of the cable.
4	End Cap	Made of hard rubber, fitted on both ends of duct coil after manufacturing.
5	Duct Cutter	To cut duct cleanly and with square ends.
6	C Spanner	To tighten plastic coupler.

DIMENSIONS : (DOT & ISO) ALL SIZES IN MM

S.NO.	DUCT SIZE	OUTER DIA	OVALITY (MAX)	WALL THICKNESS	STANDARD LENGTH
1	32/26	32±0.3	1.3	3.0±0.2	500/1000 Mtrs.
2	40/33	40±0.4	1.4	3.5±0.2	500/1000 Mtrs.
3	50/42	50±0.5	1.4	4.0±0.3	500/1000 Mtrs.
4	63/57	63±0.6	1.5	3.6±0.6	6/12/50/100 Mtrs.
5	75/65	75±0.7	1.6	4.3±0.7	6/12/50/100 Mtrs.
6	90/79	90±0.9	1.8	5.1±0.8	6/12/50/100 Mtrs.
7	110/96	110±1.0	2.2	6.3±1.0	6/12/50/100 Mtrs.
8	We are manufacturing up to 400 mm as per requirement of customer.				

OM KOTHARI GROUP

Om Kothari Group, founded in 1971, is a highly reputed business house with diversified business interests across various platforms including Engineering Construction, Infrastructure, Real Estate, Automotive Dealerships and Packaging.

The Group's flagship company, Om Metals Infraprojects Ltd. is a public listed engineering construction company specialized in executing turnkey contracts for large infrastructure projects, covering power, roads, water irrigation, real estate and oil & gas.

Om Kothari Group is run by a synergetic team of high achievers who hold the highest ethical standards for all stakeholders. Each one of Om's business models is focused on creating a strong and sturdy foundation that allows appreciable growth and has a positive impact on our world.



CONTACT US

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