

PROVIDING WATER AND SEWAGE SOLUTIONS TO THE WORLD



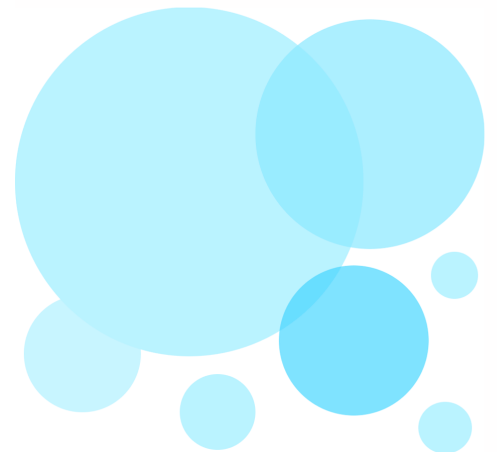
• AEPL

AKSHAT ENGINEERS PRIVATE LIMITED

PRODUCTS FOR PEOPLE WHO DEMAND QUALITY

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ABOUT US

Incepted in the year 2002, AKSHAT ENGINEERS PVT. LTD. is a well-known name in the field of Water Supply & Sewage Distribution solutions. Under the leadership of Mr. Mukesh Godika having an experience of 32 years experience in this domain, the company has been soaring heights of excellence.

Our product portfolio consists of:

PIPES

- Ductile Iron Pipe
- HDPE Pipe
- PVC Pipe - SWR Pipes, Well Casing & Screen Pipe, Rigid PVC Pipe (UPVC)

PUMPS

- Submersible Pump sets (ISI Marked 5 Star BEE Approved Energy Efficient)
- Hand Pumps & Their Spare parts & Tool Kits
- Self Priming Monoblock Pumps
- Flat Cable for Submersible Pump Sets
- Winding Wire for Submersible Pump Sets

PIPE FITTINGS

- Fittings and Valves for Ductile Iron Pipe
- Compression & Fabricated Fittings for HDPE Pipe
- Cast Iron Valves - Sluice Valve, Reflex Valve, Air Valve
- Cast Iron Detachable Joints

We are the distributors of Tata Kubota DI Pipes.

We have DGS&D Rate contract for HDPE Pipes.

Our Submersible Pump sets are in Rajasthan PWD BSR Group 1.

For years we have been supplying our products to Public Health Engineering Dept. (PHED) Rajasthan, RUIDP, Housing Board and to the private contractors. We believe in transparent dealings and work towards establishing fruitful **relationships with our clients.**



THE GOVERNING PRINCIPLES OF AEPL

“Life is filigree work. What is written clearly is not worth much, it's the transparency that counts”. - Louis-Ferdinand Celine

Transparency in today's world is a commodity that's rarely found. We at AEPL are guided by the principal of transparency & understand its importance to the purchaser. All our dealing and communication with our respected clients are transparent with no scope for secrets and confusion.



“Quality means doing it right when no one is looking” - Henry Ford



Our intention is to always provide high quality solutions to our respected clients and work towards improving the quality by Research & Development. Through our sincere efforts and periodic upgradations of our infrastructure, we are able to consistently deliver quality to our respected clients.

As truly said by William A. Foster

“Quality is never an accident; it is always the result of high intention, sincere effort, intelligent direction and skillful execution; it represents the wise choice of many alternatives”

POLYETHYLENE (PE) PIPES

PLB HDPE DUCTS

Permanently lubricated ducts are manufactured by co extrusion technique & the base raw material used is High Density Poly Ethylene.

Applications: Telecommunication, Railway Information Network, Computer Networking, Cable service providers, etc.



HDPE PIPES & COILS

HDPE pipes are manufactured from High Density Poly Ethylene polymers i.e. PE 63, PE 80 and PE 100.

Size : 20mm to 1000mm Outer Diameter.

Applications : Water supply systems, Air conditioning ducts, Acid & alkali transport systems, Darinage systems, Waste & water treatment plants, Hydro transport systems, etc.



PE PIPE FOR GAS APPLICATION (MDPE PIPE)

PE piping systems are the most preferred means of transportation and distribution of Natural gas worldwide.

The raw material used is Medium Density Poly Ethylene (MDPE).

Size : 20mm to 315mm Outer Diameter.



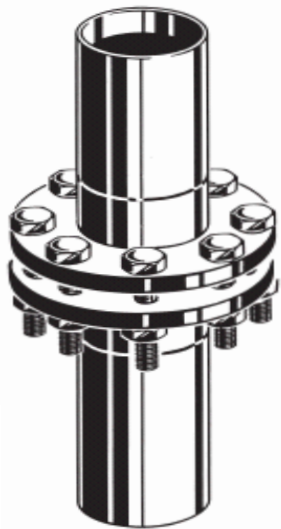
SPRINKLER PIPE

Worldwide HDPE sprinkler system is found to be the best method to get maximum yield at low cost.

These pipes are available in pressure ratings from class 1 to 4 PN 2.5, PN 3.2, PN 4.0 & PN 6.0.

Size : 63mm to 200mm Outer Diameter.





DOUBLE FLANGED HDPE PIPE

Double flanged HDPE Pipes are available with HDPE Flange, MS Flange and Cast Iron Flange. Flanges are normally used as demountable joints for low pressure installations (industrial plant, pump connection, tanks and swimming pools).

Connection Properties:

1. Rigid Mechanical Joint
2. Tension Resistant
3. Demountable



Double flanged HDPE pipes are preferred in applications where

1. The pipe has to be used temporarily and then has to be disconnected and used somewhere else.
2. The pipe is to be joined with Iron or steel pipe lines, Pumps, tanks, etc.
3. The Pipe is to be joined with Valves and fittings.

FITTINGS FOR HDPE PIPE

Compression fittings and Fabricated fittings like TEE, BEND, REDUCER, FLANGES, COUPLERS, MTA, etc are available for HDPE Pipe.

Compression fittings are available for sizes upto 110 mm OD.

Fabricated fittings are available for sizes upto 1000 mm OD.



POLYVINYL CHLORIDE (PVC) PIPES

WELL CASING & SCREEN PIPE

Size : 48mm to 315 mm Outer Diameter

Standard : IS 12818, DIN 4925

Application: Tube Wells, Bore Wells, Piezometric / Monitoring Wells, Recharge Wells, Scavenger Wells, Collector Well, Solution Mining Wells, Waste Disposal & Injection Wells, etc.



UPVC PIPE

Size : 20mm to 315mm Outer Diameter

Pressure : 2.5kg/cm² to 16 kg/cm²

Standard: ISO 4422, IS 4985, DIN 8061/62

Application : Potable water supply, Lift & Gravity irrigation systems, Sprinkler systems, Conduit, Sewerage, Cable Duct, Plumbing, Delivery pipes of Agriculture pumps, etc.

SWR PIPES

Size : 40mm to 160mm Outer Diameter.

Type :

- i. Self fit (Type A & Type B) available in 40mm to 315 mm sizes. These pipes have bell type socket at one end.
- ii. Ring o socket available in 75mm, 110mm & 160mm OD sizes. These pipes have ring type socket at one end.

Application: Sanitation, Domestic Drainage systems, Waste line & Overflow lines in chemical plants, Drainage systems in public places, Water Recharging systems, etc.



DUCTILE IRON PIPES



Ductile Iron's superiority lies in its spheroid graphite microstructure. Since the graphite structure of grey cast iron is linear, under severe loading, stress builds up unevenly around the ends of particles and weakens the metal. However, in ductile iron, since the graphite structure is spherical, similar stress distributes evenly, thereby maintaining strength. Yet the basic chemical composition of ductile iron is similar to that of grey cast iron, giving it the

same excellent anticorrosive properties. Together these features give ductile iron, excellent resistance to impact, pressure and corrosion.

Ductile Iron Pipes are available in Sizes from 80mm to 800mm.

APPLICATION : Water supply, Sewage Distribution.

ADVANTAGES :

1. Excellent Corrosion resistance.
2. Superior Mechanical Properties.
3. Excellent workability - flexible, easy & quick to join.
4. Extremely long service life - upto 100 years.

FITTINGS FOR DUCTILE IRON PIPE



Fittings like TEE, BEND, MTA, REDUCERS, DUCKFOOT BEND, etc for Ductile Iron Pipes are available as per IS 9529 and other relevant standards. These fittings are available in both socket type and flange type jointing mechanisms. These are easy to install and handle at the sites.



VALVES

Ductile Iron and Cast Iron valves like Butterfly Valve, Sluice Valve, Air Valve, Reflux Valve, etc are available for sizes up to 1000 mm. These valves are ideal for installation on a Ductile iron or Cast Iron Pipe line.

SUBMERSIBLE PUMP SETS

- **ISI MARKED**
- **5 STAR ENERGY EFFICIENT BEE APPROVED**

100 MM SUBMERSIBLE PUMP SETS

- Available in Single Phase & Three Phase (0.5 – 5.0 HP)
- Head Range 10 – 125 Meters & Discharge Range 10 – 350 LPM.
- Suitable for Domestic & Industrial Purpose, Small Water Supply Scheme, Hospitals & Schools, Agriculture, Fire Fighting Equipments, Farm Houses & Gardening.

150 MM SUBMERSIBLE PUMP SETS

- Available in Three Phase (5.0 – 25.0 HP)
- Head Range 8 – 221 meters & Discharge Range 100 – 1500 LPM.

200MM SUBMERSIBLE PUMP SETS

- Available in Three Phase (10.0 – 50.0 HP)
- Head Range 10 – 240 meters & Discharge Range 300 – 2500 LPM.



HAND PUMPS

Model	Pump Type
India Mark II	As per BIS Specifications with 63.5mm dia cast iron brass sleeved cylinder assembly.
India Mark III (65 MM NB)	As per BIS Specifications with 63.5mm dia cast iron brass sleeved open top cylinder assembly
Afridev	As per SKAT-HTN Switzerland specifications, with 50mm dia open top, UPVC brass lined cylinder assembly with extractable plunger and foot valves assemblies.
U3 Modified	Deep well hand pump as per SKAT-HTN Switzerland specifications with 50mm dia open top, UPVC brass lined cylinder assembly with extractable plunger and foot valves assemblies.
Force Lift	Force lift and motorized Conversion kits/attachments are available for the deepwell pumps. The force lift pumping system/arrangement is designed to deliver water upto a height of 15 meters from ground level.

WIRES AND CABLES

MULTISTRAND WIRES

Multi Strand Wires are PVC insulated single core unsheathed electrical wires with multi strand Copper conductor. These wires act as the backbone for providing light & electricity to houses, buildings or complexes.

Multi Strand wires are composed of a number of small gauge wires bundled or wrapped together to form a larger conductor. Stranded wire is more flexible than solid wire of the same total cross-sectional area. Stranded wire tends to be a better conductor than solid wire because the individual wires collectively comprise a greater surface area.

Features:

- High Conductivity
- Durable
- High Flexibility



Multi Strand Wires are available as per the following specifications:-

Conductor Size (Sq. MM)	No. of Strands & Dia.	Current Carrying Capacity (Amp.)
0.75	24 / 0.2	7
1	14 / 0.3	12
1.5	22 / 0.3	16
2.5	36 / 0.3	22
4	56 / 0.3	29
6	85 / 0.3	37
10	140 / 0.3	42
16	224 / 0.3	57
25	352 / 0.3	71
35	495 / 0.3	91
50	705 / 0.3	120

SUBMERSIBLE WINDING WIRE

Submersible Poly Winding wires are used for winding in submersible motors. The wires are coated with poly film for better insulation.

Submersible Poly Winding wires are available as per the following specifications:-

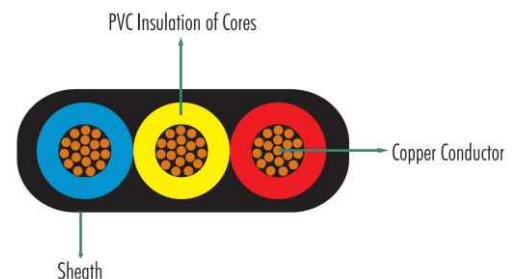


Dia. Of Conductor Nominal Size (MM)	Dia. Of Finished Wire Size (MM)	Conductor Resistance at 20° C (Max) Ohms/Km	Elongation of Wire (Min) Percent
0.4	0.9	140.00	24
0.5	1.0	89.60	25
0.6	1.1	62.20	26
0.7	1.2	45.70	28
0.8	1.3	35.00	28
0.9	1.4	27.60	29
1.0	1.5	22.40	30
1.1	1.6	18.50	30
1.2	1.7	15.50	31
1.3	1.8	13.20	32
1.4	2.0	11.40	32
1.5	2.1	9.95	32
1.6	2.2	8.75	32
1.7	2.3	7.75	32
1.8	2.4	6.91	32
1.9	2.5	6.20	32
2.0	2.6	5.60	33

SUBMERSIBLE FLAT CABLE

Submersible 3 Core Flat Cables are used for providing power supply to the Submersible Motor. It Consists of Three Copper Conductors, each coated with PVC for insulation and all coated with Sheath.

The individual conductors are made from bright electrolytic grade copper. The wires are drawn, annealed and bunched properly to ensure flexibility and uniform resistance. Each of the three copper conductors is insulated with PVC compound. The cores are laid up in flat parallel position.



Submersible 3 Core Flat Cables are available as per the following specifications:-

Nominal Area of Conductor (Sq. MM)	Max. Resistance of Conductor at 20° C (Ohms / Km)	Continuous Current Rating in Water & Air (Amps)
1.5	12.1	14
2.5	7.41	18
4	4.95	24
6	3.3	30
10	1.91	39
16	1.21	55
25	0.78	66
35	0.55	77



ELECTRICAL PANEL

Electrical Panels with Start Delta / DOL / Soft Starter, suitable for Submersible Motors are available. The Panels are manufactured as per the specification of various Govt. Depts. as well as the special requirements of the customer. Various protections like Overload / Under load protection, Over Voltage / Under Voltage protection, Phase Failure protection, etc can be integrated in the panel as per the requirement of the customer.



PP ROPE

Polypropylene ropes made from fibrillated flat tapes have already replaced cotton, jute, sisal fibre and manila fibre ropes all over the world. Polypropylene Rope suitable for various applications are available.



Applications:-

Telecommunications

Shipping Industry

Army

Indian Navy

Sugar Industry

Pickling Industry

Fishing Industry

PP Ropes are also used for tying the Submersible Pump Set with the Pipes at the time of lowering into the borehole, to prevent the pump from falling into the bore.



Wall Thickness Charts for HDPE Pipes

HDPE PIPES AS PER IS 4984 MATERIAL GRADE PE 63														
Outer Dia. (MM)	PN 2.5		PN 4		PN 6		PN 8		PN 10		PN 12.5		PN 16	
	Wall Thickness in MM													
	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
25	-	-	-	-	-	-	2.3	2.8	2.8	3.3	3.4	4	4.2	4.9
32	-	-	-	-	2.3	2.8	3	3.5	3.6	4.2	4.4	5.1	5.4	6.2
40	-	-	2	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	2.4	3	3.5	4.4	5.1	5.8	6.6	7	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
90	2.8	3.3	4.3	5	6.3	7.2	8.2	9.3	10	11.2	12.2	13.7	15	16.7
110	3.4	4	5.3	6.1	7.7	8.7	10	11.2	12.3	13.8	14.9	16.6	18.4	20.5
125	3.8	4.4	6	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	6.7	7.6	9.8	11	12.8	14.3	15.6	17.4	19	21.1	23.4	26
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	22.2	24.4	27.1	30	33.2
200	6.1	7	9.6	10.8	14	15.6	18.2	20.3	22.3	24.8	27.1	30.1	33.4	37
225	6.9	7.8	10.8	12.1	15.7	17.5	20.5	22.8	25	27.7	30.5	33.8	37.5	41.5
250	7.6	8.6	12	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	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	16.7	22	24.4	28.7	31.8	35	38.7	42.6	47.1	52.5	58
355	10.8	12.1	17	18.9	24.8	27.5	32.3	35.8	39.5	43.7	48	53	59.2	65.4
400	12.2	14.3	19.1	22.2	28	32.4	36.4	42.8	44.5	51.4	54.1	62.5	-	-
450	13.7	16	21.5	25	31.4	36.4	41.1	47.4	50	57.7	-	-	-	-
500	15.2	17.7	23.9	27.7	34.9	40.4	45.5	52.6	55.6	64.2	-	-	-	-
560	17	19.8	26.7	31	39.1	45.2	51	58.9	-	-	-	-	-	-
630	19.1	22.2	30	34.7	44	50.8	57.3	66.1	-	-	-	-	-	-
710	21.6	25.1	33.9	39.2	49.6	57.3	-	-	-	-	-	-	-	-
800	24.3	28.2	38.1	44.1	55.9	64.5	-	-	-	-	-	-	-	-
900	27.3	31.6	42.9	49.6	-	-	-	-	-	-	-	-	-	-
1000	30.4	35.2	47.7	55.1	-	-	-	-	-	-	-	-	-	-



HDPE PIPE AS PER IS 4984 MATERIAL GRADE PE 80														
Outer Dia. (MM)	PN 2.5		PN 4		PN 6		PN 8		PN 10		PN 12.5		PN 16	
	Wall Thickness in MM													
	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	3.5	3.6	4.2	4.5	5.2
40	-	-			2.3	2.8	3	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	3.6	4.2	4.7	5.4	5.8	6.6	7	7.9	8.7	9.8
75	-	-	2.9	3.4	4.3	5	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	11.2	12.5	14
110	2.7	3.2	4.3	5	6.3	7.2	8.2	9.3	10	11.2	12.3	13.8	15.2	17
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	9	10.4	11.7	12.8	14.3	15.6	17.4	19.4	21.6
160	4	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	7.9	10.2	11.5	13.4	15	16.4	18.3	20	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	27.7	31.1	34.5
250	6.1	7	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	28.7	31.8	35	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	54.1
400	9.8	11.5	15.4	18	22.7	26.4	29.7	34.4	36.4	42.1	44.5	51.4	55.2	63.7
450	11	12.9	17.4	20.3	25.5	29.6	33.4	38.7	41	47.4	50	57.7	-	-
500	12.2	14.3	19.3	22.4	28.4	32.9	37.1	42.9	45.5	52.6	55.6	64.2	-	-
560	13.7	16	21.6	25.1	31.7	36.7	41.5	48	51	58.9	-	-	-	-
630	15.4	18	24.3	28.2	35.7	41.3	46.7	54	57.3	66.1	-	-	-	-
710	17.4	20.3	27.4	31.8	40.2	46.5	52.6	60.7	-	-	-	-	-	-
800	19.6	22.8	30.8	35.7	45.3	52.3	-	-	-	-	-	-	-	-
900	22	25.5	34.7	40.2	51	58.9	-	-	-	-	-	-	-	-
1000	24.4	28.3	38.5	44.5	56.7	65.5	-	-	-	-	-	-	-	-

HDPE PIPE AS PER IS 4984 MATERIAL GRADE PE 100										
Outer Dia. (MM)	PN 6		PN 8		PN 10		PN 12.5		PN 16	
	Wall Thickness in MM									
	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	3.5	3.7	4.3	4.6	5.3
50	2.3	2.8	3	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	8.1
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	5.7	6.6	7.5	8.1	9.2	10	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	13.4	14.8	16.5	18.1	20.2	22.6	25.1
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	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
315	14.4	16.1	18.9	21	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	44.2
400	18.2	21.2	23.9	27.7	29.5	34.2	36.2	41.9	45.1	52.1
450	20.5	23.8	26.9	31.2	33.1	38.3	40.7	47.7	50.8	58.7
500	22.8	26.5	29.9	34.6	36.8	42.6	45.2	52.2	56.4	65.1
560	25.5	29.6	33.5	38.8	41.2	47.6	50.6	58.4	-	-
630	28.7	33.3	37.7	43.6	46.4	53.6	56.9	65.7	-	-
710	32.3	37.4	42.4	49	52.3	60.4	-	-	-	-
800	36.4	42.1	47.8	55.2	58.9	68	-	-	-	-
900	41	47.4	53.8	62.1	-	-	-	-	-	-
1000	45.5	52.6	-	-	-	-	-	-	-	-



HDPE PIPE AS PER IS 14333 MATERIAL GRADE PE 63														
Outer Dia. (MM)	PN 2.5		PN 4		PN 6		PN 8		PN 10		PN 12.5		PN 16	
	Wall Thickness in MM													
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
63	-	-	4	4.6	5.8	6.6	7.5	8.5	9	10.1	10.9	12.2	13.3	14.9
75	3	3.5	4.7	5.4	6.9	7.8	8.9	10	10.8	12.1	13	14.5	15.8	17.6
90	3.6	4.2	5.7	6.5	8.2	9.3	10.6	11.9	12.9	14.4	15.6	17.4	19	21.1
110	4.4	5.1	6.9	7.8	10	11.2	13	14.5	15.8	17.6	19	21.1	23.2	25.8
125	5	5.7	7.9	8.9	11.4	12.8	14.8	16.5	17.9	19.9	21.6	24	26.4	29.3
140	5.6	6.4	8.8	9.9	12.8	14.3	16.5	18.4	20	22.2	24.2	26.9	29.5	32.7
160	6.4	7.3	10	11.2	14.6	16.3	18.9	21	22.9	25.4	27.6	30.6	33.7	37.3
180	7.2	8.2	11.3	12.7	16.4	18.3	21.2	23.6	25.8	28.6	31.1	34.5	37.9	41.9
200	8	9	12.5	14	18.2	20.3	23.6	26.2	28.6	34.7	34.5	38.2	42.2	46.7
225	9	10.1	14.1	15.8	20.5	22.8	26.5	29.4	32.2	35.7	38.8	42.9	47.4	52.4
250	10	11.2	15.7	17.5	22.8	25.3	29.5	32.7	35.8	39.6	43.2	47.8	52.7	58.2
280	11.2	12.6	17.5	19.5	25.5	28.3	33	36.5	40	44.2	48.3	53.4	-	-
315	12.6	14.1	19.7	21.9	28.7	31.8	37.1	41.1	45	49.7	54.4	60.1	-	-
355	14.2	15.9	22.2	24.7	32.3	35.8	41.8	46.2	50.8	56.1	-	-	-	-
400	16	18.6	25	29	36.4	42.1	47.1	54.4	57.2	66	-	-	-	-
450	18	20.9	28.2	32.7	41	47.4	53	61.2	-	-	-	-	-	-
500	20	23.2	31.3	36.2	45.5	52.6	-	-	-	-	-	-	-	-
560	22.4	26	35	40.5	51	58.9	-	-	-	-	-	-	-	-
630	25.2	29.2	39.4	45.6	57.3	66.1	-	-	-	-	-	-	-	-
710	221.4	32.9	44.4	51.3	-	-	-	-	-	-	-	-	-	-
800	32	37	50	57.7	-	-	-	-	-	-	-	-	-	-
900	36	41.6	56.3	65	-	-	-	-	-	-	-	-	-	-
1000	40	46.2	-	-	-	-	-	-	-	-	-	-	-	-



HDPE PIPE AS PER IS 14333 MATERIAL GRADE PE 80														
Outer Dia. (MM)	PN 2.5		PN 4		PN 6		PN 8		PN 10		PN 12.5		PN 16	
	Wall Thickness in MM													
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
63	-	-	3	3.5	4.4	5.1	5.8	6.6	7	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
90	2.8	3.3	4.3	5	6.3	7.2	8.2	9.3	10	11.2	12.2	13.7	15	16.7
110	3.4	4	5.3	6.1	7.7	8.7	10	11.2	12.3	13.8	14.9	16.6	18.4	20.5
125	3.8	4.4	6	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	6.7	7.6	9.8	11	12.8	14.3	15.6	17.4	19	21.1	23.4	26
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	22.2	24.4	27.1	30	33.2
200	6.1	7	9.6	10.8	14	15.6	18.2	20.3	22.3	24.8	27.1	30.1	33.4	37
225	6.9	7.8	10.8	12.1	15.7	17.5	20.5	22.8	25	27.7	30.5	33.8	37.5	41.5
250	7.6	8.6	12	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	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	16.7	22	24.4	28.7	31.8	35	38.7	42.6	47.1	52.5	58
355	10.8	12.1	17	18.9	24.8	27.5	32.3	35.8	39.5	43.7	48	53	59.2	65.4
400	12.2	14.3	19.1	22.2	28	32.4	36.4	42.1	44.5	51.4	54.1	62.5	-	-
450	13.7	16	21.5	25	31.4	36.4	41	47.4	50	57.7	-	-	-	-
500	15.2	17.7	23.9	27.7	34.9	40.4	45.5	52.6	55.6	64.2	-	-	-	-
560	17	19.8	26.7	31	39.1	45.2	51	58.9	-	-	-	-	-	-
630	19.1	22.2	30	34.7	44	50.8	57.3	66.1	-	-	-	-	-	-
710	21.6	25.1	33.9	39.2	49.6	57.3	-	-	-	-	-	-	-	-
800	24.3	28.2	38.1	44.1	55.9	64.5	-	-	-	-	-	-	-	-
900	27.3	31.6	42.9	49.6	-	-	-	-	-	-	-	-	-	-
1000	30.4	35.2	47.7	55.1	-	-	-	-	-	-	-	-	-	-



HDPE PIPE AS PER IS 14333 MATERIAL GRADE PE 100										
Outer Dia. (MM)	PN 6		PN 8		PN 10		PN 12.5		PN 16	
	Wall Thickness in MM									
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
63	3.6	4.2	4.7	5.4	5.8	6.6	7	7.9	8.7	9.8
75	4.3	5	5.6	6.4	6.9	7.8	8.4	9.5	10.4	11.7
90	5.1	5.9	6.7	7.6	8.2	6.3	10	11.2	12.5	14
110	6.3	7.2	8.2	9.3	10	11.2	12.3	13.8	15.2	17
125	7.1	8.1	9.3	10.5	11.4	12.8	13.9	15.5	17.3	19.3
140	8	9	10.4	11.7	12.8	14.3	15.6	17.4	19.4	21.6
160	9.1	10.3	11.9	13.3	14.6	16.3	17.8	19.8	22.1	24.6
180	10.2	11.5	13.4	15	16.4	18.3	20	22.2	24.9	27.6
200	11.4	12.8	14.9	16.6	18.2	20.3	22.3	24.8	27.6	30.6
225	12.8	14.3	16.7	18.6	20.5	22.8	25	27.7	31.1	34.5
250	14.2	15.9	18.6	20.7	22.8	25.3	27.8	30.8	34.5	38.2
280	15.9	17.7	20.8	23.1	25.2	28.3	31.2	34.6	38.7	42.8
315	17.9	19.9	23.4	26	28.7	31.8	35	38.7	43.5	48.1
355	20.1	22.4	26.3	29.2	32.3	35.8	39.5	43.7	49	54.1
400	22.7	26.4	29.7	34.4	36.4	42.1	44.5	51.4	55.2	63.7
450	25.5	29.6	33.4	38.7	41	47.4	50	57.7	-	-
500	28.4	32.9	37.1	42.9	45.5	52.6	55.6	64.2	-	-
560	31.7	36.7	41.5	48	51	58.9	-	-	-	-
630	35.7	41.3	46.7	54	57.3	66.1	-	-	-	-
710	40.2	46.5	52.6	60.7	-	-	-	-	-	-
800	45.3	52.3	-	-	-	-	-	-	-	-
900	51	58.9	-	-	-	-	-	-	-	-
1000	56.7	65.5	-	-	-	-	-	-	-	-

SPRINKLER PIPE AS PER IS 14151								
Outer Dia. (MM)	Class 1		Class 2		Class 3		Class 4	
	(0.25 MPa)		(0.32 MPa)		(0.4 MPa)		(0.6 MPa)	
	Wall Thickness in MM							
	Min	Max	Min	Max	Min	Max	Min	Max
40	-	-	-	-	-	-	2.3	2.8
50	-	-	-	-	2	2.4	2.9	3.4
63	-	-	2	2.4	2.5	2.9	3.8	4.4
75	2	2.4	2.5	2.9	3	3.4	4.5	5.2
90	2.2	2.6	2.9	3.4	3.5	4.1	5.3	6.1
110	2.7	3.2	3.4	3.9	4.2	4.8	6.5	7.4
125	3.1	3.6	3.8	4.5	4.8	5.5	7.4	8.3
140	3.5	4.1	4.3	5	5.4	6.1	8.3	9.3
160	3.9	4.5	4.9	5.6	6.2	7	9.4	10.6
180	4.4	5	5.5	6.3	6.9	7.8	10.6	11.9
200	4.9	5.6	6.1	7	7.7	8.7	11.8	13.2

Wall Thickness of PVC Pipes

UPVC PIPE AS PER IS 4985												
Working Pressure and Thickness												
Outer Dia. (MM)	Class 1		Class 2		Class 3		Class 4		Class 5		Class 6	
	2.5 kg/cm ²		4 kg/cm ²		6 kg/cm ²		8 kg/cm ²		10 kg/cm ²		12.5 kg/cm ²	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
20	-	-	-	-	-	-	-	-	1.1	1.5	1.4	1.8
25	-	-	-	-	-	-	1.2	1.6	1.4	1.8	1.7	2.1
32	-	-	-	-	-	-	1.5	1.9	1.8	2.2	2.2	2.7
40	-	-	-	-	1.4	1.8	1.8	2.2	2.2	2.7	2.8	3.3
50	-	-	-	-	1.7	2.1	2.3	2.8	2.8	3.3	3.4	4
63	-	-	1.5	1.9	2.2	2.7	2.8	3.3	3.5	4.1	4.3	5
75	-	-	1.8	2.2	2.6	3.1	3.4	4	4.2	4.9	5.1	5.9
90	1.3	1.7	2.1	2.6	3.1	3.7	4	4.6	5	5.7	6.1	7.1
110	1.6	2	2.5	3	3.7	4.3	4.9	5.6	6.1	7.1	7.5	8.7
125	1.8	2.2	2.9	3.4	4.3	5	5.6	6.4	6.9	8	8.5	9.8
140	2	2.4	3.2	3.8	4.8	5.5	6.3	7.3	7.7	8.9	9.5	11
160	2.3	2.8	3.7	4.3	5.4	6.2	7.2	8.3	8.8	10.2	10.9	12.6
180	2.6	3.1	4.2	4.9	6.1	7.1	8	9.2	9.9	11.4	12.2	14.1
200	2.9	3.4	4.6	5.3	6.8	7.9	8.9	10.3	11	12.7	13.6	15.7
225	3.3	3.9	5.2	6	7.6	8.8	10	11.5	12.4	14.3	15.3	17.6
250	3.6	4.2	5.7	6.5	8.5	9.8	11.2	12.9	13.8	15.9	17	19.6
280	4.1	4.8	6.4	7.4	9.5	11	12.5	14.4	15.4	17.8	19	21.9
315	4.6	5.3	7.2	8.3	10.7	12.4	14	16.1	17.3	19.9	21.4	24.7

SWR PIPE AS PER IS 13592				
Outer Dia. (MM)	Type A		Type B	
	Wall Thickness in MM			
	Min.	Max.	Min.	Max.
75	1.8	2.2	3.2	3.8
90	1.9	2.3	3.2	3.8
110	2.2	2.7	3.2	3.8
160	3.2	3.8	4	4.6



HDPE Pipe Recommendation in Borewell

S/n	Depth of the bore	Pressure Class
1	Up to 55 Mtrs	PN 4
2	Up to 90 Mtrs	PN 6
3	Up to 140 Mtrs	PN 10
4	Up to 170 Mtrs	PN 12.5
5	Above 170 Mtrs	PN 16

Cable Selection for Submersible Pump

CABLE SELECTION CHART FOR 415 V, 50 Hz 3 PHASE SUBMERSIBLE MOTORS							
Motor Rating	Full Load Current	Cable Size in Sq. mm					
		1.5	2.5	4	6	10	16
(KW/HP)	(Amp.)	Head in Meters					
2.2 / 3	6.5	87	145	230	-	-	-
3.7 / 5	10	63	100	160	238	-	-
4.5 / 6	12	47	78	125	185	300	-
5.5 / 7.5	14.5	41	68	107	158	262	-
7.5 / 10	19.5	-	51	80	120	200	297
9.3 / 12.5	25	-	-	65	97	160	253
11 / 15	29	-	-	56	84	137	216
12.9 / 17.5	34	-	-	-	-	110	175
15 / 20	39	-	-	-	-	98	155





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