

# DOLPHIN<sup>®</sup>



Green begins

GROWN BY

# NATURE

Growing green fields and a green environment



**UPVC & CPVC**  
PRODUCT



IRRIGATION &  
SPRINKLER  
PRODUCT



AGRICULTURE &  
GARDEN PIPES

**DOLPHIN**<sup>®</sup>



## ABOUT US

The leading Dolphin Group, Rajkot is a very famous brand in Indian plastic industry. The Company initiated on small scale venture and piped success, in the year 1988 and touches the sky of the fame in couple of years. It looks that we produce the pipes, but basically we pipelined the success for our millions of clients. Dolphin believes in the rhythm of quality, either a big fish or a company. We know and care for the constant pleasure of our clients. We consider them as a virtual partner of our company. They always inspire us for new horizon. We maintain their happiness by strict quality supervision and high-tech managerial skill. The Dolphin Group Manufactures & Markets a wide range of pipes & irrigation products. The Dolphin Group is a Conglomerate of Many Manufacturing house in India. The Director of the company enjoys a rich experience of 30 year in the field of producing reprocess plastic granules, Plastic color master batch, Additive master batch & Filler compound, including HDPE Pipe, Drip Irrigation, Lateral Irrigation, Mini Sprinkler Irrigation, Sprinkler Irrigation Pipe & Fittings, uPVC Pipe & Fittings, cPVC

Pipe & Fittings, PVC Pipe & Agri Fittings, SWR Pipe & Ringfit Pipe. Being a leading manufacturer and supplier of various plastic Items, fully skilled staff under the guidance of dedicated and visionary managers makes Dolphin a leader in the market. The company is also having an ISO 9001:2015, 14001:2015, 45001:2018 Certification system for the competitive up gradation of production, quality and management. The Company is approved by the BIS, GWSSB, WASMO, IKHEDUT, GGRC & Other State Government Project.

### Infrastructure

We possess sound infrastructure, equipped with advanced Metoda manufacturing unit spread over a total area of 50,000 sq. feet. With a plant capacity of 7500 metric tons per annum & Nani Amreli manufacturing unit spread over a total area of 55000 sq. feet. With a plant capacity of 7200 metric tons per annum. Availability of the latest machinery from Israel & Germany Technology plants assists us in producing high quality products for our esteemed clients.

## OUR VALUABLE CUSTOMER

## USE THIS SECTOR



## Our Mission

Commitment to excel and deliver consistently to all our customers without compromising on the Quality.

We are devoted to our customers' satisfaction. Our mission is to create eco-friendly, water-saving, reliable and cost-effective agricultural irrigation product together to help you maximize well-being and that of the world around you.

To be one of the Global Player in Irrigation product.

To diversify into newer markets with more products. To build excellent rapport with existing and new customers with consistent supply of quality products and practices.

To be a socially responsible company.

We provide superior execution in our service throughout the manufacturing, delivery and customer care, by strengthening the endeavors in the daily tasks, being proactive, flexible and paying particular attention to every detail.

## Our Vision

We face the future with strength, confidence and a commitment to being a great business partner. We will continue to manufacture the high quality and most cost-effective products.

We will continue to launch new products to maximize performance and minimize costs - by optimize water and energy consumption. We provide our customers with Top Class care.

To scale new peaks in excellence in manufacturing of MIS and Telecom Solutions and become a world leader. Provide world class quality products to our customers through continuous up gradation and innovation. To create lasting relationships with our Customers, Dealers and other stake holders.

## Products Range

- **Inline Drip Irrigation System**
- **Online Drip Irrigation System**
- **Mini Sprinkler Irrigation System**
- **Sprinkler Irrigation System**
- **HDPE Pipe**
- **MDPE Pipe**
- **HDPE Spray Pipe**
- **PLB Duct Pipe**
- **cPVC Pipe & Fittings**
- **uPVC Pipe & Fittings**
- **PVC Pipe & Agri Fittings**
- **SWR Pipe & Fittings**
- **Column Pipe**
- **Ring Fit Pipe**
- **Garden Pipe**

## Core Values

Customer centric focus - Delivering par excellence in products and services Quality - Products and Services to be of "Best in Class".

Strive for continuous improvement in terms of processes, technology and services to deliver the "Best" in terms of Quality Professionalism - We believe in strong levels of professionalism in our work, provide ample growth opportunities and acknowledge excellence in work spheres adhering to highest standards with best corporate practices.





## QUALITY ASSURANCE



We produce Quality Products which conforms to the requirements of Bureau Of Indian Standards (BIS). We have the following ISI marked products.

IS STANDARD	DESCRIPTION
IS : 4984 - 2016	High Density Polyethylene Pipe for Potable Water Supply.
IS : 4985 - 2000	Poly Vinyl Chloride Pipe for Potable Water Supply.
IS : 12786 - 1989	Irrigation Equipment - Polyethylene Pipe for Irrigation Lateral.
IS : 13487 - 1992	Irrigation Equipment – Emitter
IS : 13488 - 2008	Irrigation Equipment – Emitting Pipe System.
IS : 13592 - 2013	Poly Vinyl Chloride Pipe for SWR System.
IS : 14151 (P-1) - 1999	Irrigation Equipment - Sprinkler Pipe.
IS : 14151 (P-2) - 2008	Irrigation Equipment - Quick Coupled Sprinkler Pipe.
IS : 15778 - 2007	Chlorinated Polyvinyl Chloride - CPVC Pipe.

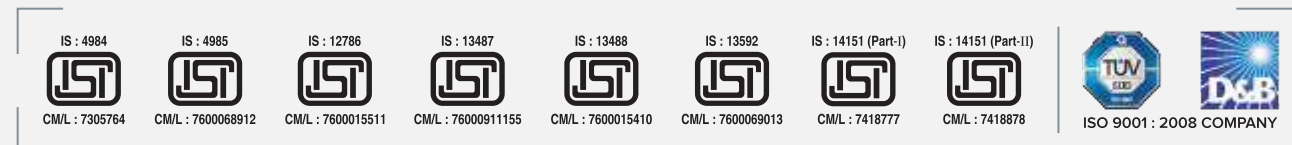
**OUR QUEST FOR QUALITY HAS ALWAYS BEEN THE BEDROCK OF OUR EXCELLENCE**



## QUALITY POLICY

### Quality Assurance Policy

DOLPHIN Group of Company promises the customer satisfaction by delivering goods those are tested on various parameters like Inside Dimensions, Outside Dimensions, Wall Thickness, Impact Test, Pressure Test, Leak Proof Test, Durability, Color etc. This helps us in rendering high grade products to the user's end. We serve the best quality to the customers. Company owns machines with high-tech Israel & German technology and laboratory with well equipped instruments and experienced technical staff. We also offer customized packaging, good quality with good services in superior performance and continues involvement in our respected and valuable customer of our DOLPHIN products.





## CPVC PIPE & FITTINGS

### Product Range

½" to 2" for Pipes & ½" to 2" for Fittings

### Standards

Pipes : IS 15778 (SDR 11 & 13.5)

Fittings : ASTM D 2846 (SDR 11)

### Applications

- Indoor and outdoor use for hot & cold water application (From 0°C to 93°C only)
- Residential & commercial buildings.
- Public utilities, swimming pools & industrial applications.
- RO and DM water Plants.
- For concealed, down take & terrace looping.

### Jointing Method

Solvent Joint & Threaded Joint.

### Major Advantages

- Proven hot & cold water performance from 0°C to 93°C.
- Manufactured from environmental friendly virgin CPVC compounds.
- Safe for drinking water.
- Long life.
- Self-extinguishing. Does not support combustion.
- UV resistance ensures pressure and temperature bearing capability unaffected even after long term exposure to sunray.
- High impact resistance ensures high quality performance at lower temperatures.
- Fast and easy installation. Saves labour.
- Lower thermal conductivity.
- No bacterial growth compared to other piping material.

## Features & Benefits

### Resistant to Corrosion

Even under the harshest water conditions, DOLPHIN CPVC Pipe & Fittings give excellent resistance to corrosion. You don't need to worry about impure water due to corrosion of metal pipes or soldered joints.

Free from Bacterial Growth : Compared to other piping materials like copper, steel and other thermoplastics; CPVC has the lowest possibility of bacterial build up.

### Handles Hot and Cold Water

DOLPHIN CPVC can work equally efficiently with both extremely hot and cold water. This compatibility is second to none owing to its heat efficiency and lower installation cost.

### Low Thermal Expansion

Compared to other plastic pipes, CPVC has a lower coefficient of thermal expansion, thereby avoiding looping of the pipe due to heat expansion.

### Easy Welding Process

CPVC employs simple solvent cement along with inexpensive tools, Also electrical source isn't needed as well.

### Superior Insulation

Compared to metal pipes, CPVC does not lose heat leading to less heat loss and decreased thermal expansion.

### Safe from Fire

These pipes do not support combustion due to limiting Oxygen Index (LOI) of 60 making it combustion resistant. It doesn't lead to flaming drips, high smoke generation and excess fire load.

### Tough, Durable Material

CPVC material is extremely tough and durable, making it possible to achieve same flow rate with a smaller pipe size. Compared to all other thermoplastics, CPVC has a much higher strength and hence has higher pressure bearing capability.

### Resistant to Damage by Chlorine

Chlorine is mostly used in India for cleaning potable water but it adversely affects metal pipes. CPVC pipes solve this issue with chlorine being unable to break its polymer chains, thus avoiding possible leaks.

### Resistant of Chemicals

DOLPHIN CPVC is highly resistant to many chemicals, even strong mineral acids & bases.

### Accepted by World

CPVC Pipes and Fittings are the preferred choice in many countries including UK, USA, Germany, Canada, France, Netherlands & Middle East etc. It is also the chosen potable water pipe & fitting in India.

### Avoids Scale, Pit or Leach Formation

CPVC manages to maintain full water carrying capacity even after years of its installation due to its resistance to low pH water, coastal salt air exposure and corrosive soil.

### Cost Effective Choice

CPVC Piping & Fitting is highly cost effective, It saves cost on tools, fittings, anchors, offsets, labour, loops etc. They can last over 50 years, bringing down the overall cost of the entire piping and fitting system as a whole.

# CPVC Pipe & Fittings

## Mechanical Properties

Density	1.55g/cm <sup>3</sup>
Ultimate Tensile Strength	58MPa
Comprehensive Strength	70MPa
Shear Strength	39MPa
Hardness (Rockwell)	121 (ASTMD785)
Elongation at Break	50% - 80%

## Thermal Properties

Max Continuous Service Temp.	93°C
Coeff. of Thermal Expansion	6.3 x 10 <sup>-5</sup> m/m/0c
Vicat. Softening Temperature	110°C (IS 15778)

## Electrical Properties

Dielectric Constant	3.70@60Hz
Power Factor	0.007% @ 1000 ohm

## Pressure Rating & Temp. Derating

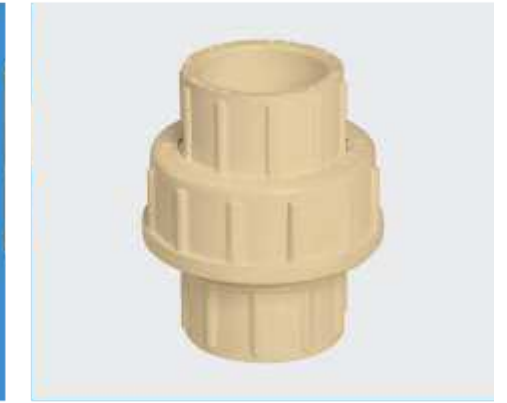
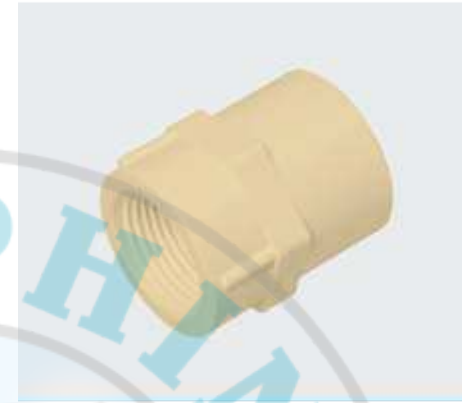
	Pipe Temp.	Pressure	Rating
SDR11	23	400	28.10
	82	100	7.00
SDR13.5	23	320	22.50
	82	80	5.60

## Dimensions

Cont. Service Temp (°C) (Working Pressure of %)	23-25	32	38	49	60	71	82	93
		100	91	82	65	50	40	25

CPVC Pipes As per IS 15778

Nominal Bore		Outside Diameter	SDR - 11				SDR - 13.5			
			Wall Thickness		Working Pressure		Wall Thickness		Working Pressure	
Inch	mm	mm	Min. (mm)	Max. (mm)	At 270C (kg/cm <sup>2</sup> )	At 820C (kg/cm <sup>2</sup> )	Min. (mm)	Max. (mm)	At 270C (kg/cm <sup>2</sup> )	At 820C (kg/cm <sup>2</sup> )
½	15	15.90 (±0.10)	1.70	2.20	28.14	6.93	1.40	1.90	22.22	5.60
¾	20	22.20 (±0.10)	2.00	2.50	28.14	6.93	1.70	2.20	22.22	5.60
1	25	28.60 (±0.10)	2.60	3.10	28.14	6.93	2.10	2.60	22.22	5.60
1¼	32	34.90 (±0.10)	3.20	3.70	28.14	6.93	2.60	3.10	22.22	5.60
1½	40	41.30 (±0.10)	3.80	4.30	28.14	6.93	3.10	3.60	22.22	5.60
2	50	54.00 (±0.10)	4.90	5.50	28.14	6.93	4.00	4.60	22.22	5.60





## uPVC PIPE & FITTINGS

### Product Range

½" to 2½" for Pipes & ½" to 2" for Fittings

### Standards

Pipes : Schedule 40 & 80 - As per ASTM D-1785

Fittings : Schedule 80 - As per ASTM D-2467

### Applications

- Indoor and outdoor use for cold water application.
- Residential & commercial buildings, public utilities, swimming pools.
- RO and DM water Plants.
- For concealed, down take & terrace looping.

### Major Advantages

- Lead-free material ensures safe drinking water.
- Exceptional corrosion resistance ensures constant flow over lifetime.
- Light weight but strong.
- Self-extinguishing. Does not support combustion.
- High impact resistance, ensures high quality performance for lower temperatures.
- Fast and easy installation.
- Save labour.
- Long life.

### Joining Method

Solvent Joint & Threaded Joint.

#### Note

- Not for use with compressed air and gases.
- Pressure rating of UPVC Pipes & Fittings is temperature related. Derating factor should be applied during designing & operation for higher temperature application. For detailed data refer IS 4985 or contact us.
- Installation of UPVC pipelines should be done in accordance with IS 7634 (Part-3).
- Flow velocity in the pipeline should not be greater than 1.5 meter/sec.
- For threaded pipes & fittings the working pressure at 23°C should be considered as 50% of rated.

## Features & Benefits

### Non-Corrosion

uPVC pipes resist corrosion caused by acid, alkalis, oils, salts, moisture and the media inside and outside the pipe. It is particularly reliable for resistance to the severe climatic and soil conditions in Saudi Arabia.

### Sanitary

uPVC pipes are entirely non-toxic. It will not affect the taste, smell or colour of water or liquid not react with any liquid not react with any liquid to cause a precipitant.

### Low Flow Loss

uPVC pipes have a mirror-smooth surface which minimize resistance and impede the build-up of deposits and corrosive scales.

### Mechanical Strength

uPVC pipes have great tensile strength yet they are flexible enough to withstand displacement in the pipe line. They will not dent or flatten under pressure.

### Light Weight

uPVC pipe are incredibly light. Their specific weight is one fifth of steel pipe. This cuts down transportation costs and facilitates the installation of pipes and reduces its cost.

### Ease of Installation

uPVC pipe are quick and easy to install, with a complete range of fittings, using solvent cement or rubber joints. Joints are leakproof. UPVC Pipes can be cut easily for installation.

### Ease of Maintenance

uPVC pipe can be quickly repaired with a minimum of complication or cost.

### Fire Resistance

uPVC pipe will not support combustion. In the event of fire, flames are unable to travel along the pipe. It is self extinguishing.

### Insulator

uPVC pipe are ideal for electric conduits. Because uPVC in itself is an integral insulator, it eliminates the possibility of electrolytic corrosion which so often destroys underground piping.

### Tough, Durable Material

uPVC material is extremely tough and durable, making it possible to achieve same flow rate with a smaller pipe size. Compared to all other thermoplastics, uPVC has a much higher strength and hence has higher pressure bearing capability.

### Cost Effective Choice

uPVC Piping & Fitting is highly cost effective, It saves cost on tools, fittings, anchors, offsets, labour, loops etc. They can last over 50 years, bringing down the overall cost of the entire piping and fitting system as a whole.

# uPVC Pipe & Fittings

## uPVC Temp. Derating Factors

Cont. Service Temp (°C) 23 30 35 40 45 50 55 60  
 % of Working Pressure 100 90 75 62 50 40 30 22  
 Note : Maximum continuous service temperature for uPVC Pipe is 60°C and derating factor needs to be applied for service temperatures above 23°C

## uPVC Mechanical Properties

Specific Gravity 1.41 - 1.46 g/cm<sup>3</sup>  
 Ultimate Tensile Strength 50 MPa  
 Comprehensive Strength 63 MPa  
 Shear Strength 39 MPa  
 Hardness (Durometer) 80 ± 3 (ASTM D2240)  
 Elongation at Break 50% - 80%

## uPVC Thermal Properties

Max Continuous Service Temp. 50°C  
 Coeff. of Thermal Expansion 5.4 x 10<sup>-5</sup> mm/°C  
 Vicat Softening Temperature Min. 79°C  
 Flame Resistance Self extinguishing uPVC dose not support combustion when the source of ignition is removed.

## uPVC Electrical Properties

Dielectric Constant 3.70 @ 60 Hz  
 Power Factor 1013 - 1014 ohm  
 Surface Resistivity 2000 Volts/mm  
 Dielectric Strength V/mil 1413 @ 60 Hz

## Dimensions & Working Pressure

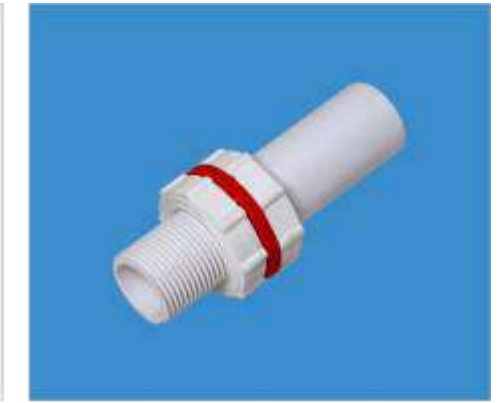
uPVC Pipes (Solvent Weld) at 23°C

Nominal Bore	Outside Diameter	SCHEDULE 40		SCHEDULE 80	
		Wall Thickness	Working Pressure	Wall Thickness	Working Pressure
Inch	mm	mm	kg/cm <sup>2</sup>	mm	kg/cm <sup>2</sup>
½	21.34 ± 0.10	2.77 + 0.51	42.20	3.73 + 0.51	59.75
¾	26.67 ± 0.10	2.87 + 0.51	33.75	3.91 + 0.51	48.50
1	33.40 ± 0.13	3.38 + 0.51	31.60	4.55 + 0.53	44.25
1¼	42.16 ± 0.13	3.56 + 0.51	26.00	4.85 + 0.58	36.60
1½	48.26 ± 0.15	3.68 + 0.51	23.25	5.08 + 0.61	33.00
2	60.32 ± 0.15	3.91 + 0.51	19.65	5.54 + 0.66	28.10
2½	73.02 ± 0.18	5.16 + 0.61	21.10	7.01 + 0.84	29.55

uPVC Fittings (Solvent Weld) at 23°C

Nominal Bore	SCH. 40	SCH. 80
	Working Pressure	Working Pressure
Inch	kg/cm <sup>2</sup>	kg/cm <sup>2</sup>
½	25.30	35.85
¾	20.25	29.10
1	18.95	26.55
1¼	15.60	21.95
1½	13.95	19.80
2	11.75	16.85

Working pressure for Metal Insert Fittings is 15 kg/cm<sup>2</sup>







## AGRICULTURE PVC PIPE & FITTINGS

### Product Range

20mm to 315mm for pipe.  
63mm to 110mm for Fittings.

### Standards

Pipes : IS 4985 - 2000  
Fittings : IS 7834 - 1987

### Specification

- Colour - Light Grey
- Working Temperature - Up to 60°C Continuous
- Working Pressure - 2.5kg/cm<sup>2</sup> to 12.5kg/cm<sup>2</sup>

### Jointing Method

Solvent Joint & Threaded Joint.

- Pressure rating of PVC pipes & Fittings is temperature related. Derating factor shall be applied during designing & operation for higher temperature applications. (For detailed data refer IS-4985 or contact us).
- Installation of PVC pipeline shall be done in accordance with ISI standard.

### Major Advantages

- Light weight, easy transport, store, handle and install. Saves labour cost.
- Smooth bore ensures higher flow compared to G.I. pipes and fittings of the same size. No clogging.
- Save operational cost.
- Solvent cement joint therefore quick installation.
- Corrosion resistance. PVC is rustproof material therefore bore diameter remains constant, ensuring constant flow over a lifetime.
- Long working life (if operated under normal / recommended working conditions).
- Cost effective. Added value for your money.

## Applications of PVC Pipes & Fittings

### Water Supplies

Non-toxic UPVC pipes will not affect the taste, color or smell of drinking water. They will never corrode and are therefore extremely sanitary. Deposits and scales will not build up inside as in the case for conventional steel pipes. Their strength is greater than asbestos pipes.

### Irrigation Systems

UPVC pipes are ideal for agricultural irrigation and sprinkler systems. Non-corrosive UPVC pipes are perfect for carrying water which contains chemical fertilizers and insect inhibitors. In thick wall and large diameter UPVC pipes liquids can be transported under high pressure which is convenient for the management of large farms.

### Industry

Resistant to most chemicals, UPVC pipes have an important role to play in industrial plants, light, non-corrosive and easy to assemble they allow more complex piping work than with steel or cast-iron pipes.

### Solid, Waste & Drainage System

Waste line for corrosive gases, ventilation for office buildings and factories; drainage systems for private homes and elevated highways - these are a few of the many possibilities for UPVC pipes. A full line of UPVC fittings is available to assure easy installation.

### Mining

UPVC pipes particularly are well-suited for draining corrosive liquids found in mines. They make an ideal vent line for pits because they are easily installed in hard to reach places.

### Electrical & Telecommunications Cables

UPVC pipes form an integral insulator, hence there is an ever-increasing demand for them as electrical conduit. To facilitate work, a full line of fittings is available and fabricated from the same material as the pipes.

### UPVC Pipes for Casing and Screen

Engineering difficulties and the probability of adverse chemical reactions make it impractical to overcome corrosion and encrustation through the use of protective coating, chemical treatment or cathodic protection. Thus non-corrosion PVC for water well casing and screens rapidly received approval by the appropriate ministry consultants and engineers.

## Dimension for Pipes as per IS : 4985-2000

Nominal Outside Diameter (Nominal Size)	Mean Outside Diameter		Outside Diameter at Any Point		Wall Thickness												Mean Socket Internal Diameter of Mid Point of Socket Length	
					Class - 1 0.25 MPa 2.5 kg/cm <sup>2</sup>		Class - 2 0.40 MPa 4.0 kg/cm <sup>2</sup>		Class - 3 0.60 MPa 6.0 kg/cm <sup>2</sup>		Class - 4 0.80 MPa 8.0 kg/cm <sup>2</sup>		Class - 5 1.00 MPa 10.0 kg/cm <sup>2</sup>		Class - 6 1.25 MPa 12.5 kg/cm <sup>2</sup>			
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
20	20.0	20.3	19.5	20.5	-	-	-	-	-	-	-	-	1.1	1.5	1.4	1.8	20.1	20.3
25	25.0	25.0	24.5	25.5	-	-	-	-	-	-	1.2	1.6	1.4	1.8	1.7	2.1	25.1	25.3
32	32.0	32.3	31.5	32.5	-	-	-	-	-	-	1.5	1.9	1.8	2.2	2.2	2.7	32.1	32.3
40	40.0	40.3	39.5	40.5	-	-	-	-	1.4	1.8	1.8	2.2	2.2	2.7	2.8	3.3	40.1	40.3
50	50.0	50.3	49.4	50.6	-	-	-	-	1.7	2.1	2.3	2.8	2.8	3.3	3.4	4.0	50.1	50.3
63	63.0	63.3	62.2	63.8	-	-	1.5	1.9	2.2	2.7	2.8	3.3	3.5	4.1	4.3	5.0	63.1	63.3
75	75.0	75.3	74.1	75.9	-	-	1.8	2.2	2.6	3.1	3.4	4.0	4.2	4.9	5.1	5.9	75.1	75.3
90	90.0	90.3	88.9	91.1	1.3	1.7	2.1	2.6	3.1	3.7	4.0	4.6	5.0	5.7	6.1	7.1	90.1	90.3
110	110.0	100.4	108.6	111.4	1.6	2.0	2.5	3.0	3.7	4.3	4.9	5.6	6.1	7.1	7.5	8.7	110.1	110.4
125	125.0	125.4	123.5	126.5	1.8	2.2	2.9	3.4	4.3	5.0	5.6	6.4	6.9	8.0	8.5	9.8	125.1	125.4
140	140.0	140.5	138.3	141.7	2.0	2.4	3.2	3.8	4.8	5.5	6.3	7.3	7.7	8.9	9.5	11.0	140.2	140.5
160	160.0	160.5	158.0	162.0	2.3	2.8	3.7	4.3	5.4	6.2	7.2	8.3	8.8	10.2	10.9	12.6	160.2	160.5
180	180.0	180.6	177.8	182.2	2.6	3.1	4.2	4.9	6.1	7.1	8.0	9.2	9.9	11.4	12.2	14.1	180.2	180.5
200	200.0	200.6	197.6	202.4	2.9	3.4	4.6	5.3	6.8	7.9	8.9	10.3	11.0	12.7	13.6	15.7	200.3	200.6
225	225.0	225.7	222.3	227.7	3.3	3.9	5.2	6.0	7.6	8.8	10.0	11.5	12.4	14.3	15.3	17.6	225.3	225.7
250	250.0	250.8	247.0	253.0	3.6	4.2	5.7	6.5	8.5	9.8	11.2	12.9	13.8	15.9	17.0	19.6	250.4	250.8
280	280.0	280.9	276.6	283.4	4.1	4.8	6.4	7.4	9.5	11.0	12.5	14.4	15.4	17.8	19.0	21.9	280.4	280.9
315	315.0	316.0	311.2	318.8	4.6	5.3	7.2	8.3	10.7	12.4	14.0	16.1	17.3	19.9	21.4	24.7	315.4	316.0

### Mechanical

Tensile Strength : 415 - 525 kg/cm<sup>2</sup>  
 Compression Strength : 550 - 910 kg/cm<sup>2</sup>  
 Flexural Strength : 680 - 1100 kg/cm<sup>2</sup>  
 Izod Impact Strength : 4 - 5 kg/cm<sup>2</sup>  
 Shore Hardness : D 65 - 85

### Thermal

Coefficient of Linear Expansion : 0.08 mm/MOC  
 Vicat Softening Temperature : >78°C  
 Max. Operating Temperature : 60°C  
 Physical  
 Specific Gravity : 1.40 - 1.46  
 Water Absorption : <4 mg/cm<sup>3</sup>





## SWR PIPE & FITTINGS

### Product Range

40 mm to 160 mm for Type-A & Type-B pipe.  
75, 110 & 160 mm for Fittings.

### Standards

Pipes : IS 13592 - 2013  
Fittings : IS 14735 - 1999

### Applications

- Piping for soil discharge.
- Waste discharge.
- Venting of gasses/smells/bad odors.
- Non pressure industrial drainage application (based on chemical compatibility)
- Rain water transportation.
- Domestic & commercial drainage
- Replacement of cast iron piping
- Laboratory drainage.
- Harvesting for residential, commercial & public utilities.

### Joining Method

Elastomeric sealing ring or solvent weld joint.

### Major Advantages

- Light weight & strong resilient.
- Faster and easy installations.
- UV stabilized & chemical resistance.
- High flow rate & non-pressure plumbing application.
- Cost effective. Added value for your money.
- over a lifetime.
- Long working life.
- Lower labour and installation cost.
- Better fitment
- Does not drop out.
- Better leak proofing and full proof jointing.
- Dimensions within very close tolerance.
- Suitable for outdoor application.
- Corrosion & rust proof.
- Maintenance free system.
- Attractive steel grey color.

## Dimension for Pipes as per IS : 13592-2013

### Technical details ring fit pipe

(All dimensions are in mm)

Nominal Outside Diameter (DN)	Mean Outside Diameter		Outside Diameter		Wall Thickness		Wall Thickness	
			at Any Point		Type A		Type B	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
75	75.00	75.30	74.10	75.90	1.80	2.20	3.20	3.80
90	90.00	90.30	88.90	91.20	1.90	2.30	3.20	3.80
110	110.00	110.40	108.60	111.40	2.20	2.70	3.20	3.80
160	160.00	160.50	158.00	162.00	3.20	3.80	4.00	4.60

### Dimension of grooved socket

(All dimensions are in mm)

Nominal Outside Diameter (DN)	Inside Diameter D1		Inside Diameter of Beading D2		Length of Beading & Neck	Neck of Socket	Length Beyond Beading
	Min.	Max.	Min.	Max.	Max.	Min.	C
					A		
75	75.30	76.20	84.50	85.50	20	5	25
90	90.10	90.30	99.50	100.50	23	5	28
110	110.40	111.30	120.30	121.30	26	6	32
160	160.50	161.50	173.80	175.00	32	9	42

### Minimum wall thickness of socket of pipes

Nominal Outside Diameter (DN)	S2		S3	
	Min.		Min.	
	Type A	Type B	Type A	Type B
75	1.60	2.90	1.00	2.40
90	1.70	2.90	1.10	2.40
110	2.00	2.90	1.20	2.40
160	2.90	3.60	1.80	3.00

(All dimensions are in mm)

### Installation Process

- Cut Pipe straight & check for the crack on mouth portion of the pipe.
- Chamfer the spigot end of pipe
- Use a clean & dry cloth to wipe the dirt, rain water & moisture on both pipe & fittings.
- Check the socket end for seal.
- Apply lubricant on the spigot end of the pipe.
- Immediately insert pipe into the fitting socket.



**GARDEN PIPE**

**Specification**

**Grade** : Metallic Pipe (RSM), Colour Transparent Pipe (CT), Braided Pipe - Colour (BGH)

**Range** : Available size 1/2", 3/4", 1", 1 1/4" inch.

**Applications :**

- General pumping and suction application in construction and agriculture industries.
- Irrigation purpose in agriculture with electric mono block and oil engines.
- Suitable for the horticultural, mining and marine industries.
- Delivery and suction of water.
- Also used in potable water supply.
- Conveying of materials in processing industries.
- Conveyance of waste, sludge, slurry, chemicals and other waster matter.
- Suction and delivery of saline water, light acids, sewage, alkaline and other chemical except solvents.
- Fisheries and shipping industries.
- Suction for dung cart.

**Salient Feature**

- Hygienic water supply.
- Light weight.
- Non-toxic.
- Non corrosive.
- Long life.
- Less electricity cost.
- Continuous flow.
- Prevent bacterial
- Resistant to chemicals.
- Easy Install, repair & replace.



## uPVC SUBMERSIBLE COLUMN PIPE

### Specification

- Materials** :Poly Vinyl Chloride Resin Materials.
- Range** :Available in size from 33mm (1") to 114mm (4") inch.
- Class** :Available in different pressure medium, standard, heavy & super heavy pipes and maximum installation depth 365 meters (1200 Feet).
- Colour** :White Colour
- Length** :Available in Standard length for 3 Meters one end male threaded & other end female threaded.
- Properties** :Don't change up to maximum ambient temperature 700° C.
- Threading** :Column pipe are designed with special CNC square threads to provide tension free grips pipes are durable and can bear maximum weight. The pipes are joined and separated easily, which saves valuable time.
- Sealing Ring** :Special rubber rings are used easy fitment using rubber sealing ring to ensure leak proofing and absorption of vibrations during pumping operations for submersible pumps and pipes so saves both time and energy.
- Adaptors** :The Adapter are prepared with ultra modern technology designed cast iron are available for use with column pipe.
- Locking** :Liquid bonding Locking System

## Features & Benefits

### Application

- Suitable in submersible and jet pump for irrigation, sifted pumping system, domestic, industrial mining, chemical distribution or can be used in many other purposes.
- A surely replacement for MS, GI, HDPE & Steel pipes.

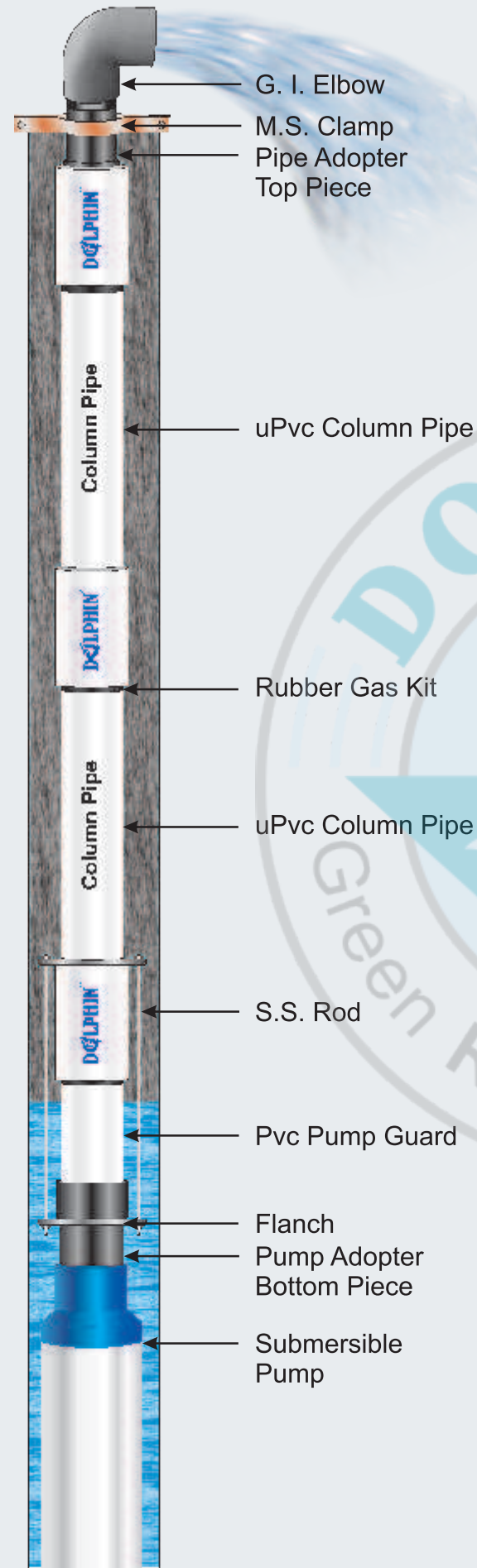
### Unique Future

- Long Life
- Leak Proof
- Light in Weight
- Strong & Durable Pipe
- Non Toxic
- Low installation cost
- Long Lasted Durability,
- Easy Installation,
- Resistance to Chemical
- Non Corrosion & Wrinkle Free
- Power & Energy Saver Pipe
- Weather & Impact resistance
- Smooth surface it increases pump life period



### Technical Parameters

Nominal Size	Outside Diameter	O.D. Over Connection Max.	Medium	Standard	Heavy
Inch	mm	mm	Wall Thickness	Wall Thickness	Wall Thickness
1	33.40	46.00	3.70	5.10	-
1¼	42.16	55.00	4.40	5.30	-
1½	48.26	62.00	4.80	5.40	-
2	60.32	79.00	4.90	6.30	7.50
2¼	65.00	90.00	5.00	6.60	7.90
2½	73.02	94.50	5.50	6.80	9.10
3	88.90	114.00	6.00	7.50	10.10
4	114.30	136.50	6.50	8.60	12.20



**DOLPHIN**<sup>®</sup>



## MDPE PIPE

### Applications

Drinking Water, Gas Handling, Residential Colonies, Housing Societies, Jal Board, Corporation etc.

### Specification

**Materials** : HDPE granules (PE 63, PE 80, PE 100 Grade)

**Product Range** : Available in Size 20mm to 200mm Outer diameter.

**Pressure Rating** : 4 kg/cm<sup>2</sup> to 25 kg/cm<sup>2</sup>.

**Standard** : Confirm to as per IS 4984 : 2016 & ISO 4427 : 2007

**Temperature** : -40°C to 60°C

**Length** : Available in Standard length 50, 100, 200, 500, 1000 & 2000 meter coils Depending on the pipes dimensions. Or Large diameter in fixed length of 6 Meter as per customer requirements.

**Colour** : Sky Blue, Black & Yellow

### Features

- Outstanding resistance to conventional chemical & environments.
- Flexible & highly durable.
- Intricately finished.
- Excellent flow characteristics.
- Earthquake resistance

# ESTABLISHED PRODUCT

Other Product Range



Other Product Range

