



VARAHI POLYMERS PVT. LTD.

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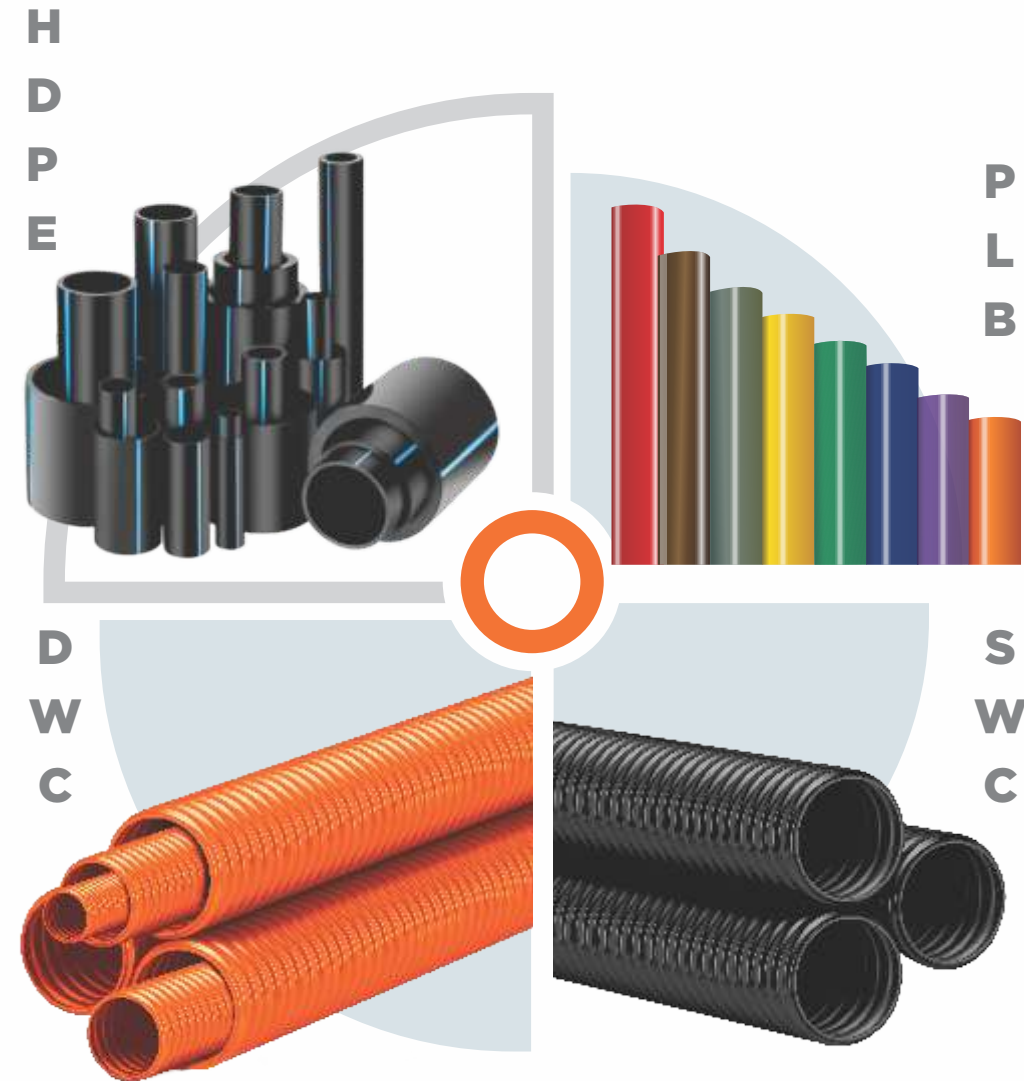
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Varahi polymers pvt ltd

varahipolymerspvt



एक कदम स्वच्छता की ओर



VARAHI

POLYMERS PVT. LTD.

www.sy-aronpipes.com



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POLYMERS

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We are **VARAHI POLYMERS PVT. LTD.** In 2016, **VPPL** Group has started manufacturing with Brand Name Of “**SY-ARON**” we have Large experience of 35 years in distribution of plastic pipe and steel pipes. With starting of manufacturing of cable conduit system for electrical and power sector industries, our story is now one of continuous growth, fueled by our passion for Innovation, Quality and Sustainability.

VPPL is a niche quality-focused player in the field of extrusion and moulding different polymers like PP, LLDPE, LDPE, HDPE and MDPE. **VPPL** has modern and state-of-the-art manufacturing facilities with 26000 sq.mtr at Bhavnagar, Gujarat. With production capacity of 8400 Mt/year, VPPL is also credential with having executed complex turn-key project for power distribution and solar & wind farm establishment using in house engineering and technical skills. **VPPL** possesses a unique combination of diversified manufacturing competency and highly advanced engineering and technical skills to offer versatility, highly innovative, and competitive plastic systems (PE, LDPE) and application.

Our Mission: Our company motto is to go on a journey dedicated to a scientific system for innovation and growth for betterment of human life. Our vision is to deliver the best piping system with timely-updated and in-sync as per demand.

Quality Assurance: We take pride that we always believe in quality with the best in-house testing facility for delivering the best product design for customers.

Customers-Centric: Your satisfaction is our priority. We listen to your needs and word collaboratively to deliver tailored solutions that address your unique challenges. We have an excellent record in customer satisfaction.

Our Team: Behind our success is a team of dedicated professionals who bring their expertise and passion to every project.

Looking Ahead:The Journey of **Varahi Polymers Pvt. Ltd.** is an exciting one and the best is yet to come. We are poised for growth and committed to future plan.

We are proud to state that we are associated with prestigious government departments like Indian Railways, Airport Authorities, PWDS, CPWD, Municipal Corporation, BSNL. Our customer list includes various clients in India and abroad. We take pride in these client’s customer satisfaction with quality & timely deliveries.



ACCESSORIES FOR JOINTINS



"0" Ring



Bend



Tee



Cross Tee



Cable Gland Hood



Coupler



End-Cap



KEY FEATURES

- ▶ Corrosion resistance and deposits
- ▶ Flexibility to speed installations
- ▶ Freeze-Break resistance
- ▶ Lightweight, easy to transport
- ▶ Low scrap value, avoiding job site theft
- ▶ Durability and toughness to survive job site installations
- ▶ Excellent load-bearing capacity
- ▶ Abrasion Resistant
- ▶ Chemically inert Resistant
- ▶ Flexible & Fatigue Resistant
- ▶ Excellent Anti-Corrosive Properties
- ▶ Suitable for any aggressive climate condition
- ▶ Suitable for salt pan area

TECHNICAL SPECIFICATION

- ▶ As per IS 16205 Part-24: 2018
- ▶ As Per TEC/GR/FA/DWC-034/02/AUG-19
- ▶ As per RDSO Spacetourer
- ▶ As per IEC 61386-1:2008+AMD: 2017

APPLICATION

- ▶ Street Light Projects
- ▶ Optical Fiber Cable Network
- ▶ Solar Project cable protection
- ▶ Level Crossing, Platforms
- ▶ Home signals
- ▶ Signaling cable management for rail installation
- ▶ CCTV & Smart City household cabling for big projects

MECHANICAL PROPERTIES

- ▶ Compression Test : >450N & >750N
- ▶ Impact Test : No crack split 5kg load, relevant height at -5°C for 2 hrs.
- ▶ Bending Test : The pipe shall not flatten at minimum bending radius and the sphere of diameter 95% of declared by IS code of pipe should pass through it smoothly

ABOUT HDPE DWCC DUCT PIPE

"SY-ARON" Brand HDPE DWCC PIPES are designed as technically superior and cost-effective solutions for replacing RCC or PVC pipes in optical fiber cables, railway signaling cables, electric cables, and telecom cable networks. "SY-ARON" Pipes are manufactured from virgin high-density polyethylene (HDPE). In double-walled corrugated pipes, the USP is lightweight due to the corrugation of the outer layer and the smoothness of the inner layer, along with a particular load-bearing design that provides DWCC pipes with excellent cable protection in underground or above-ground applications. The inner smooth wall facilitates easy cable insertion. "SY-ARON" Pipes, with their excellent mechanical properties and ability to withstand heavy external loads when properly buried and backfilled, are ideally suited for environments where the direct placement of ducts and cables is not safe or easy.

UNIQUE FEATURE ON REQUEST

- ▶ **Anti-Rodent Properties** : To avoid Rodent Attack
- ▶ **UV Protected** : Propagation for open use UV Protected Material
- ▶ **Anti-Termite Properties** : To avoid Termite Attack
- ▶ **Non-Flame Propagating Properties** : Protection with resistance to flame

COLOUR

- ▶ Black / Orange, Orange / Orange, Black / Black and any other colour as per special request.

EASY INSTALLATION

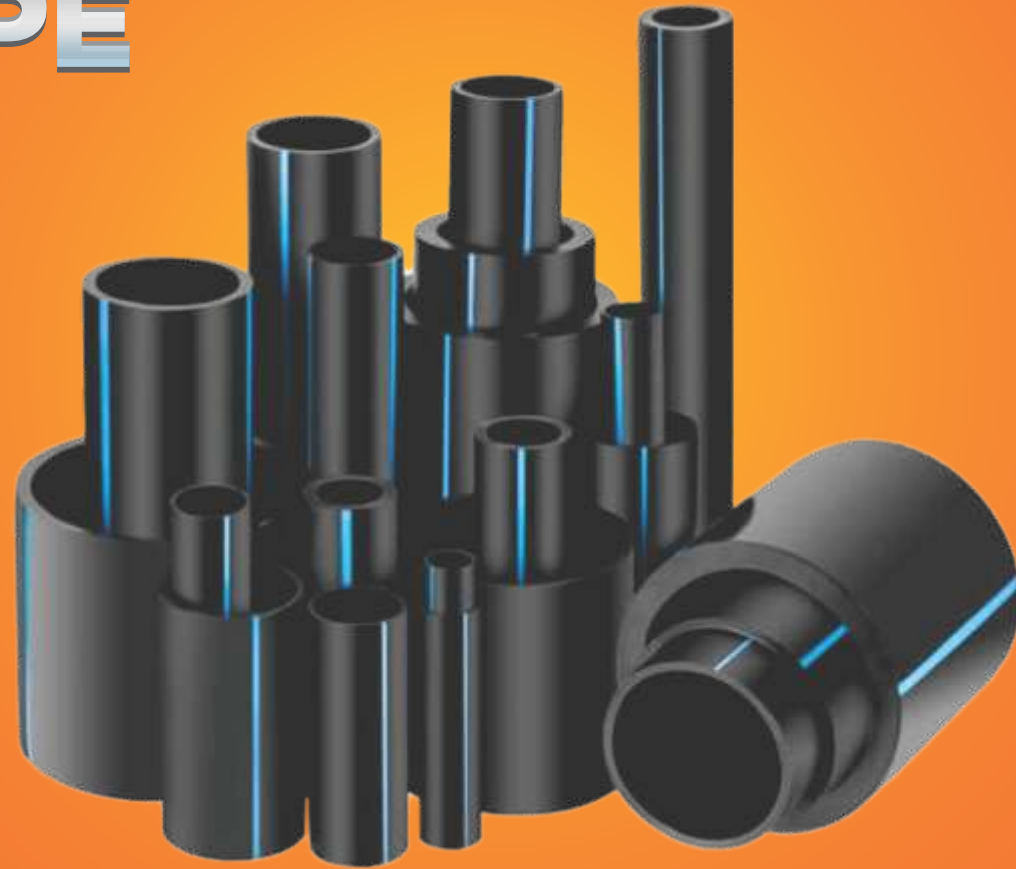
- ▶ No heavy loading or carrying machinery is required. They are user-friendly, very fast, and inexpensive in installation. There is less use of manpower, and they can be installed in very constrained locations.

SIZE CHART HDPE DWCC DUCT PIPE

DIMENSION

Sr No.	Nominal Size mm	Nominal Outside Diameter mm	Tolerances mm	Min Inside Diameter mm	Standard Length Meter
1	40	40	+0.8	31	800mtr / 500mtr / 100mtr
2	50	50	+1.0	38	500mtr / 100mtr.
3	63	63	+1.2	51	300mtr / 250mtr / 100mtr
4	75	75	+1.4	61	6mtr
5	90	90	+1.7	75	6mtr
6	110	110	+2.0	96	6mtr
7	120	120	+2.2	103	6mtr
8	160	160	+2.9	135	6mtr

HDPE PIPE



ABOUT HDPE PIPES

HDPE PIPE has the ability to withstand harsh chemicals without corrosion and leak as well as the tight installation, polyethylene (PE) has been regarded as the ideal material for the water industry.

Additionally, PE joints offer leak-free connections that outperform other competing materials in terms of reliability and longevity, not to mention the remarkable savings on the installation costs and life of the materials. Improvements in the strength and performance of PE materials has resulted in water, chemical & several other industries needing solutions for liquid and gas transfer to adopt PE for its pressure transmission networks.

The polyethylene we manufacture has been effectively stabilized with carbon against UV radiation effects. The Stabilization also serves to counteract head fatigue, thus increasing life. "SY-ARON" is one of the leading HDPE pipe suppliers. These pipes are effective for fluid transfer for aboveground, underground, or even in floating applications. The usage of HDPE pipes ranges from industries to commercial water supply.

TECHNICAL SPECIFICATION

- ▶ "SY-ARON" pipe is manufacturing HDPE pipes from 20mm to 500mm with pressure ratings from PN 2.5 – PN 20 in grades like PE 63, PE 80 & PE 100 as per IS 4984: 2016 + AMD-2: APRIL 2022.

KEY FEATURES

- ▶ Manufactured From 100% Virgin Raw Material.
- ▶ Outstanding Flexibility And Crush Resistance
- ▶ Excellent Chemical Resistance
- ▶ Fusion Welded Joining Provides Leak-free
- ▶ Anti-microbial Properties Reduce Bacterial Growth
- ▶ Excellent Flow Characteristics
- ▶ Long Life
- ▶ Environment-friendly
- ▶ Economical

APPLICATION

- ▶ Petroleum Products Lines
- ▶ Liquid Process Pipelines
- ▶ Cooling Water Lines for Industrial Plants (Refineries, Petrochemical & Power plants)
- ▶ Pressure water main lines
- ▶ Industrial Sewage System
- ▶ Water Distribution System
- ▶ Salt Water and Sea Water Pipelines
- ▶ Water Injection Lines
- ▶ Flow & Gathering Lines for Oilfields
- ▶ Ballast Lines and Marine Applications



HDPE PIPE SIZE CHART

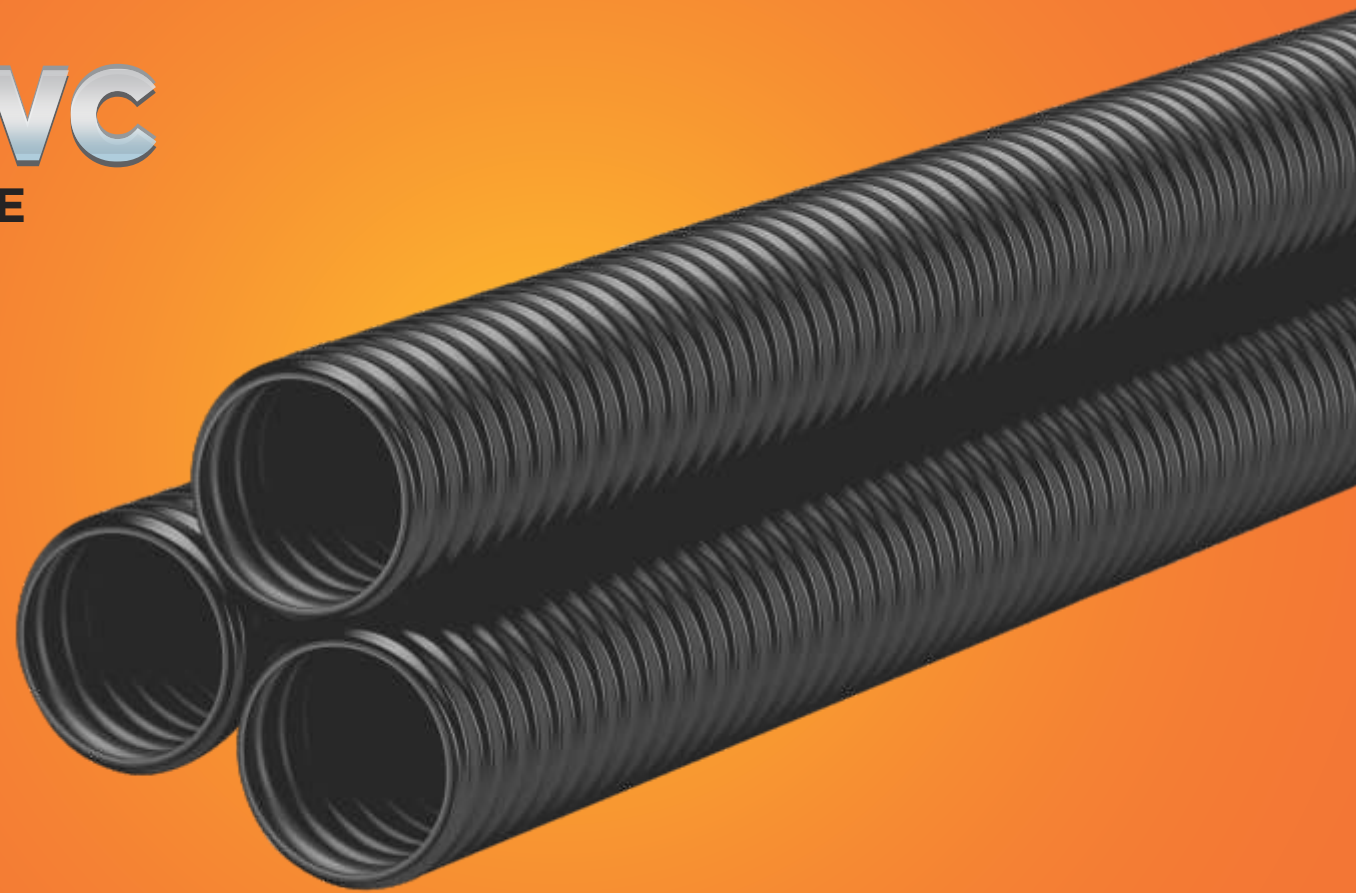
AS PER IS 4984 : 2022

Standard Dimension Ratio (SDR) and Corresponding Wall Thickness (e) of Pipes

SDR	SDR 41	SDR 33	SDR 26	SDR 21	SDR 17	SDR 13.6	SDR 11	SDR 9	SDR 7.4	SDR 6
Grade	NOMINAL PRESSURE (PN) BAR									
PE 63	PN 2	PN 2.5	PN 3.2	PN 4	PN 5	PN 6	PN 8	----	----	----
PE 80	PN 2.5	PN 3.2	PN 4	PN 5	PN 6	PN 8	PN 10	PN 12.5	PN 16	PN 20
PE 100	PN 3.2	PN 4	PN 5	PN 6	PN 8	PN 10	PN 12.5	PN 16	PN 20	----

WALL THICKNESS

Nominal OD dn, mm (1)	Emin. mm (2)	Emax mm (3)	Emin. mm (4)	Emax mm (5)	Emin. mm (6)	Emax mm (7)	Emin. mm (8)	Emax mm (9)	Emin. mm (10)	Emax mm (11)	Emin. mm (12)	Emax mm (13)	Emin. mm (14)	Emax mm (15)	Emin. mm (16)	Emax mm (17)	Emin. mm (18)	Emax mm (19)	Emin. mm (20)	Emax mm (21)	
20	--	--	--	--	--	--	--	--	--	--	2.0	2.3	2.3	2.7	2.8	3.2	3.4	3.9	3.4	3.9	
25	--	--	--	--	--	--	--	--	2.0	2.3	2.3	2.7	2.8	3.2	3.4	4.9	4.2	4.8	4.2	4.8	
32	--	--	--	--	--	--	--	2.0	2.3	2.4	2.8	3.0	3.4	3.6	4.1	4.4	5.0	5.4	6.1	5.4	6.1
40	--	--	--	--	--	--	2.0	2.3	2.4	2.8	3.0	3.4	3.7	4.2	4.5	5.1	5.5	6.2	6.7	7.5	
50	--	--	--	--	--	--	2.4	2.8	3.0	3.4	3.7	4.2	4.6	5.2	5.6	6.3	6.8	7.6	8.4	9.4	
63	--	--	--	--	2.0	2.3	3.0	3.4	3.8	4.3	4.7	5.3	5.8	6.5	7.0	7.8	8.6	9.6	10.5	11.7	
75	2.0	2.3	2.3	2.7	2.5	2.9	3.6	4.1	4.5	5.1	5.6	6.3	6.9	7.7	8.4	9.4	10.2	11.4	12.5	13.9	
90	2.2	2.6	2.8	3.2	2.9	3.3	4.3	4.9	5.3	6.0	6.7	7.5	8.2	9.2	10.0	11.1	12.2	13.6	15.0	16.6	
110	2.7	3.1	3.4	3.9	3.5	4.0	5.3	6.0	6.5	7.3	8.1	9.1	10.0	11.1	12.3	13.7	14.9	16.5	18.4	20.4	
125	3.1	3.6	3.8	4.3	4.3	4.9	6.0	6.7	7.4	8.3	9.2	10.3	11.4	12.7	13.9	15.4	16.9	18.7	20.9	23.1	
140	3.5	4.0	4.3	4.9	4.9	5.5	6.7	7.5	8.3	9.3	10.3	11.5	12.8	14.2	15.6	17.3	19.0	21.0	23.4	25.9	
160	4.0	4.5	4.9	5.5	5.4	6.1	7.7	8.6	9.5	10.6	11.8	13.1	14.6	16.2	17.8	19.7	21.7	24.0	26.7	29.5	
180	4.4	5.0	5.5	6.2	6.2	7.0	8.6	9.6	10.6	11.8	13.3	14.8	16.4	18.2	20.0	22.1	24.4	27.0	30.0	33.1	
200	4.9	5.5	6.1	6.9	7.0	7.8	9.6	10.7	11.8	13.1	14.8	16.4	18.2	20.2	22.3	24.7	27.1	30.0	33.4	36.9	
225	5.5	6.2	6.9	7.7	7.7	8.6	10.8	12.0	13.3	14.8	16.6	18.4	20.5	22.7	25.0	27.6	30.5	33.7	37.5	41.1	
250	6.1	6.9	7.6	8.5	8.7	9.7	12.0	13.3	14.8	16.4	18.4	20.4	22.8	25.2	27.8	30.7	33.8	37.3	41.7	46	
280	6.9	7.0	8.5	9.5	9.7	10.8	13.4	14.9	16.5	18.3	20.6	22.8	25.5	28.2	31.2	34.5	37.9	41.8	46.7	51.5	
315	7.7	8.6	9.6	10.7	10.8	12	15.0	16.6	18.6	20.6	23.2	25.7	28.7	31.7	35.0	38.6	42.6	47.0	52.5	57.9	
355	8.7	9.7	10.8	12.0	12.2	13.6	17.0	18.8	20.9	23.1	26.2	29	32.3	35.7	39.5	43.6	48.0	52.9	59.2	65.3	
400	9.8	10.9	12.2	13.6	13.7	15.2	19.1	21.2	23.6	26.1	29.5	32.6	36.4	40.2	44.5	49.1	54.1	59.7	66.7	73.5	
450	11.0	12.2	13.7	15.2	15.4	17.1	21.5	23.8	26.5	29.3	33.1	36.6	41.0	45.2	50.0	55.1	60.9	67.1	75.0	82.6	
500	12.2	13.6	15.2	16.9	19.3	21.4	23.9	26.4	29.5	32.6	36.8	40.6	45.5	50.2	55.6	61.3	67.6	74.5	83.4	91.9	



**SMART CHOICES,
STRONG CONNECTIONS WITH SWC PIPES**



ABOUT SHEATHING HDPE PIPE

Corrugated And Sheathing Pipe is widely used in nuclear containment, flyovers, bridges, offshore platforms, elevated structures, viaducts, underpasses, pipelines, tunnels, slabs, etc. This is designed using high-grade raw materials to ensure sturdy construction, high- durability, and superior strength. It is available in a chemically inert design along with water tightness. In addition to this, it is available with enhanced corrosion protection features along with enhanced fatigue life of concrete. With an environment-friendly design, high impact as well and excellent compression strength, it provides the best performance for years to come. It also comes with good weathering-resistant features along with high stiffness and flexibility. This is available in different sizes and specifications to meet the varied demands of the clients.

APPLICATION

- ▶ Fly Over Bridges
- ▶ Metro And Railway Projects
- ▶ Building Foundation Work With Retaining Wall
- ▶ Highway And Road Crossing System For Networking
- ▶ Use For Curved Structure And Slabs

TECHNICAL SPECIFICATION

- ▶ HDPE Corrugated Ducts Meet The Specifications As Per The Fib Bulletin 7:2000, Irc: 18-2000, Irc: 112 - 2011, Addendum And Corrigendum 1rs Slip No. 6 Railway Concrete Bridge Code 1997

HDPE SWC PIPE SIZE CHART

Sizes OD/ID	Thickness	Length
50mm / 39mm	2mm / 2.5mm	30 Mtrs
63mm / 50mm	2mm / 2.5mm	30 Mtrs
78mm / 63mm	2mm / 2.5mm	30 Mtrs
92mm / 75mm	2mm / 2.5mm	30 Mtrs
97mm / 85mm	2mm / 2.5mm	30 Mtrs
110mm / 95mm	2mm / 2.5mm	30 Mtrs
120mm / 103mm	2mm / 2.5mm	06 Mtrs
125mm / 105mm	2mm / 2.5mm	06 Mtrs
160mm / 136mm	2mm / 2.5mm	06 Mtrs

PLB DUCT PIPE



FEATURES OF PLB DUCT PIPE



- ▶ Outstanding resistance to conventional chemical & environments
- ▶ Flexible & highly durable
- ▶ Can be tested with 1km blowing
- ▶ Reduction of stress on cable during installation
- ▶ Installation of longer length made feasible
- ▶ Faster and easy installation of cable with less workers
- ▶ Existing cables can be deploy after de-blowing from the duct
- ▶ High capacity to Ultraviolet (UV) protection
- ▶ Traceable
- ▶ Duct can be supplied with pre-inserted rope or with Copper Tracer wire depending on customer requirements
- ▶ Supplied in continuous length up to 1000 Meters
- ▶ Extensive range of colours (08 Nos) for Individual duct identification

ABOUT PLB DUCT PIPE

The Telecommunication ducts are **HDPE duct pipes** pre-lubricated with silicone cores suitable for telecommunication and fiber optic cables. They are derived by combining the strength and flexibility of PE material with a suitable lubricating layer on the inner surface of the ducts

“SY-ARON” telecom ducts are suitable for cable installation by blowing technique or pulling by rope. Directional drilling can also be used to install electrical or telecommunication ducting in under-road applications, or heavily built-up areas. Our cable ducts offer extremely low friction properties, are strong & flexible, and highly suitable for fiber optic cable installations.

“SY-ARON” Smooth wall HDPE duct is made to Industry Standards for Power and Communications Applications. It can be installed using open trench methods, HDD (Horizontal Directional Drilled) Plowed, or pulled into conduit.

APPLICATION OF PLB DUCT PIPES

- ▶ Railways Information Network
- ▶ Cable Service Providers
- ▶ Telecommunication
- ▶ Computer Networking
- ▶ Fiber Networking
- ▶ Defense Network

TECHNICAL SPECIFICATION

- ▶ TEC / GR / FA / CDS - 008 / 04 / AUG - 19

PLB DUCT PIPE SIZE CHART

Size	32mm / 26mm	40mm / 33mm	50mm / 42mm	63mm / 50mm	110mm / 80mm
Outside Diameter	32mm + 0.3mm - 0.0mm	40mm + 0.4mm - 0.0mm	50mm + 0.5mm - 0.0mm	63mm + 0.6mm - 0.0mm	110mm + 1.0mm - 0.0mm
Wall thickness	3.0mm ± 0.2mm	3.5mm ± 0.2mm	4.0mm ± 0.3mm	6.5mm ± 0.4mm	15.0mm ± 0.6mm
Thickness of the inner layer	Minimum: 0.24mm Maximum: 0.36mm	Minimum: 0.28mm Maximum: 0.42mm	Minimum: 0.32mm Maximum: 0.48mm	Minimum: 0.36mm Maximum: 0.54mm	Minimum: 0.56mm Maximum: 0.84mm
Standard Length	1000 ± 100 Meters	1000 ± 100 Meters	1000 ± 100 Meters	500 ± 50 Meters	200 ± 20 Meters
Maximum Outer Diameter of Optical fiber cable that can be installed by blowing technique	12mm	16mm	21mm	25mm (144 Fiber)	40mm (576 Fiber)

MDPE PIPE



APPLICATION OF MDPE PIPES

- ▶ Suitable for drinking water supply system
- ▶ Gas distribution system



ABOUT MDPE PIPE

With “SY-ARON” Brand here we offer a full range of pipeline products for water and gas pipe systems. Referred to as MDPE (medium density polyethylene) these plastic pipes are used as a replacement for traditional copper pipes, saving time and cost on installation for house hold plumbing and also widely refer for gas distribution system. MDPE plastic pipes are resistant to bacterial growth, which is crucial in wastewater plumbing, where bacterial buildup can lead to unpleasant odours and health hazards.

“SY-ARON” is manufacturing MDPE pipes from 20mm to 400mm with pressure ratings from PN 2.5 – PN 20 in grades like PE 80 & PE 100 with IS 14885 latest standards.

TECHNICAL SPECIFICATION

- ▶ “SY-ARON” MDPE Pipe As Per IS 14885 : 2022

CHARACTERISTICS OF MDPE PIPES

- ▶ MDPE has good shock and drop resistance properties
- ▶ MDPE is less notch sensitive compare to hdpe
- ▶ MDPE is best for stress cracking resistance
- ▶ MDPE is good for monolithic piping system for leak free work
- ▶ MDPE pipe is excellent for chemical resistance
- ▶ MDPE pipe can be also made with food grade quality

SIZE CHARTS OF MDPE PIPES WALL THICKNESS

Nominal Outside Diameter mm	Minimum Wall Thickness (e _{min}) mm			
	SDR 9	SDR 11.0	SDR 13.6	SDR 17.6
dn				
20	3.0	3.0	2.3	2.3
25	3.0	3.0	2.3	2.3
32	3.6	3.0	2.3	2.3
40	4.5	3.7	3.0	2.3
50	5.6	4.6	3.7	2.9
63	7.1	5.8	4.7	3.6
75	8.4	6.8	5.5	4.3
90	10.1	8.2	6.6	5.2
110	12.3	10.0	8.1	6.3
125	14.0	11.4	9.2	7.1
140	15.7	12.7	10.3	8.0
160	17.9	14.6	11.8	9.1
180	20.1	16.4	13.3	10.3
200	22.4	18.2	14.7	11.4
225	25.1	20.5	16.6	12.8
250	27.9	22.7	18.4	14.2
280	31.3	25.4	20.6	16.0
315	35.2	28.6	23.2	17.9
355	39.7	32.3	26.1	20.2
400	44.7	36.4	29.4	22.8

QUALITY ASSURANCE

- ▶ **"SY-ARON"** products that meet or exceed acceptable quality and product standards to ensure customer satisfaction.
- ▶ **"SY-ARON"** committed to manufacture & supply its products as per customer's requirement in time, through continual improvement in quality management systems and involvement of its employees.
- ▶ **"SY-ARON"** Providing safe, effective and innovative products and services.
- ▶ As an ISO 9001 : 2015, ISO 14001 & ISO 45001 Quality Management System Certified Company, we have complied with the quality parameters required for different products.
- ▶ To pursue continuous improvements and best practices in our business processes, by setting, reviewing and communicating our objectives.
- ▶ To ensure that all personnel are aware of their individual roles and responsibilities within the Quality System.
- ▶ **"SY-ARON"** ensures that our products meet or exceed all requirements by making a commitment to quality, taking the time to train staff correctly, and having the support from the senior management team to make good decisions.
- ▶ **"SY-ARON"** Quality and Engineering group prides themselves on providing fast and informative responses to customer inquiries to ensure each customer has the information they need to feel confident in their purchase.
- ▶ **"SY-ARON"** has a well-equipped laboratory too and the in-house testing services employ several dexterous operators and engineers for the quality control and for those matters.
- ▶ Initial material quality check on every time before production start.
- ▶ Here the quality control cell puts supreme quality checks at mainly three stages - raw material, online production, and the finished product stages, ensuring perfection and flawlessness.
- ▶ First level of QC occurs on the line as the pipe is in production, watching machine conditions and dimensions to ensure compliance.
- ▶ Second level of QC occurs on the plant floor and once again QC staff complete random inspections and review all records.
- ▶ Third level of QC, Testing of pipe to all applicable requirements and standards is completed throughout production runs and upon completion of the order.
- ▶ Forth level of QC occurs in a hold area where all production is reviewed once again by QC staff and a final inspection occurs.
- ▶ A complete commitment to ensure that only tested products leave the factory as well as a strong after sales support to fully comply with customer's request symbolises the company's approach to product reliability.
- ▶ The company has exclusive testing facilities manned by qualified personnel which ensure that the products manufactured by the company meet the entire standard specified by the customers.
- ▶ We have always emphasized on the quality and the performance of our industrial highlight which is primary feature of our organization.
- ▶ The company has latest machinery with professional skills leveraging high end technology with high accuracy testing machines thereby providing our high quality products range to withstand diverse environment.
- ▶ We have quality analysts who strictly monitor each production stage to ensure that products are manufactured as per international quality standard.
- ▶ We have a stringent quality control at our various production stages starting from the procurement of raw material to the packaging and till delivery of the product.

QUALITY ASSURANCE CERTIFICATE



GOVERNMENT APPROVAL CERTIFICATE



OUR SUCCESS IS DEFINED BY OUR CLIENTS

