ASTRAL® PIPES

Comprehensive Piping Solutions
lead by

QUALITY & INNOVATIONS



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ISO 9001 • 14001 • 45001 CERTIFIED COMPANY By Bureau Veritas (India) Pvt.Ltd.

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SC: PRO7000019
ACB/EXB/002
REV:02/23

Plumbing | Drainage | Agriculture | Industrial | Cable Protection
Fire Protection | Infrastructure | Water Tanks

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ASTRAL, INDIA'S PROGRESSIVE BUILDING MATERIALS COMPANY

Established in 1996 with the aim to manufacture best-in-globe plastic piping systems, Astral Pipes fulfils emerging piping needs of millions of houses and adds extra mileage to India's developing real estate fraternity with the hallmark of unbeaten quality and innovative piping solutions. Keeping itself ahead of the technology curve, Astral has always been a front runner in the piping category by bringing innovation and getting rid of old, primitive and ineffective plumbing methods. Bringing CPVC in India, and pioneering in this technology, have set Astral apart and its highest quality enabled it to obtain NSF approval for its CPVC pipes and fittings. Astral went beyond the category codes by launching many industry firsts, like launching India's first lead-free uPVC pipes for plumbing as well as for stream water, just to name a few.

Astral Pipes offers the widest product range across this category when it comes to product applications. Astral Pipes is equipped with production facilities at Santej and Dholka in Gujarat, Hosur in Tamil Nadu, Ghiloth in Rajasthan, Sangli & Aurangabad in Maharashtra, Cuttack in Odisha and Sitarganj in Uttarakhand to manufacture plumbing systems, drainage systems, agriculture systems, fire sprinkler piping systems, industrial piping and electrical conduit pipes with all kinds of necessary fittings.

Astral Pipes' Infrastructure division offers a comprehensive product range including corrugated piping for drainage and cables, polyolefin cable channels, sewage treatment plants, plastic sheathing ducts, suction hoses, and sub-surface drainage systems. This range helps Astral to establish a strong foothold in infrastructure and agriculture sector in the constantly evolving business of piping.

In 2014, Astral forayed into the adhesives category by acquiring UK-based Seal It Services Ltd. and Kanpur based Resinova Chemie Ltd., which manufacture adhesives, sealants and construction chemicals. With five manufacturing facilities now in this business segment, Astral has strengthened its presence in the category and made rapid inroads.

In the year 2020, Astral has expanded its product portfolio and entered into the Water Tanks Segment. The water tank segment is an expanded domain of plumbing and water supply with a huge nationwide potential. Astral Pipes manufactures water tanks from its Santej, Aurangabad, Cuttack, Hosur & Ghiloth manufacturing facilities. A wide range of water storage tanks has helped Astral to become a versatile player in the industry.

Extending the product portfolio further, in the year 2022 Astral forayed into the categories of Faucets and Sanitaryware, followed by acquisition of Bangalore based Gem Paints to enter in the Paints category. This expansion will help Astral march firmly towards becoming a holistic building materials company.

ADHESIVES

EPOXY ADHESIVES & PUTTY
SILICONE SEALANTS
CONSTRUCTION CHEMICALS **PVA**
CYANOACRYLATE **SOLVENT CEMENTS**
TAPES **POLYMERIC FILLING COMPOUND**
ANAEROBIC ADHESIVES
INDUSTRIAL ADHESIVES
INSTANT HAND SANITIZER
SURFACE CLEANING PRODUCTS

PIPING

PLUMBING PIPES & FITTINGS
CPVC, PVC & PEX
SEWERAGE DRAINAGE PIPES & FITTINGS
AGRICULTURE PIPES & FITTINGS
INDUSTRIAL PIPES & FITTINGS
FIRE SPRINKLERS PIPES & FITTINGS
CONDUIT & CABLE PROTECTION
ANCILLARY PRODUCTS
URBAN INFRASTRUCTURE
DUCTING

WATER TANKS

PAINTS

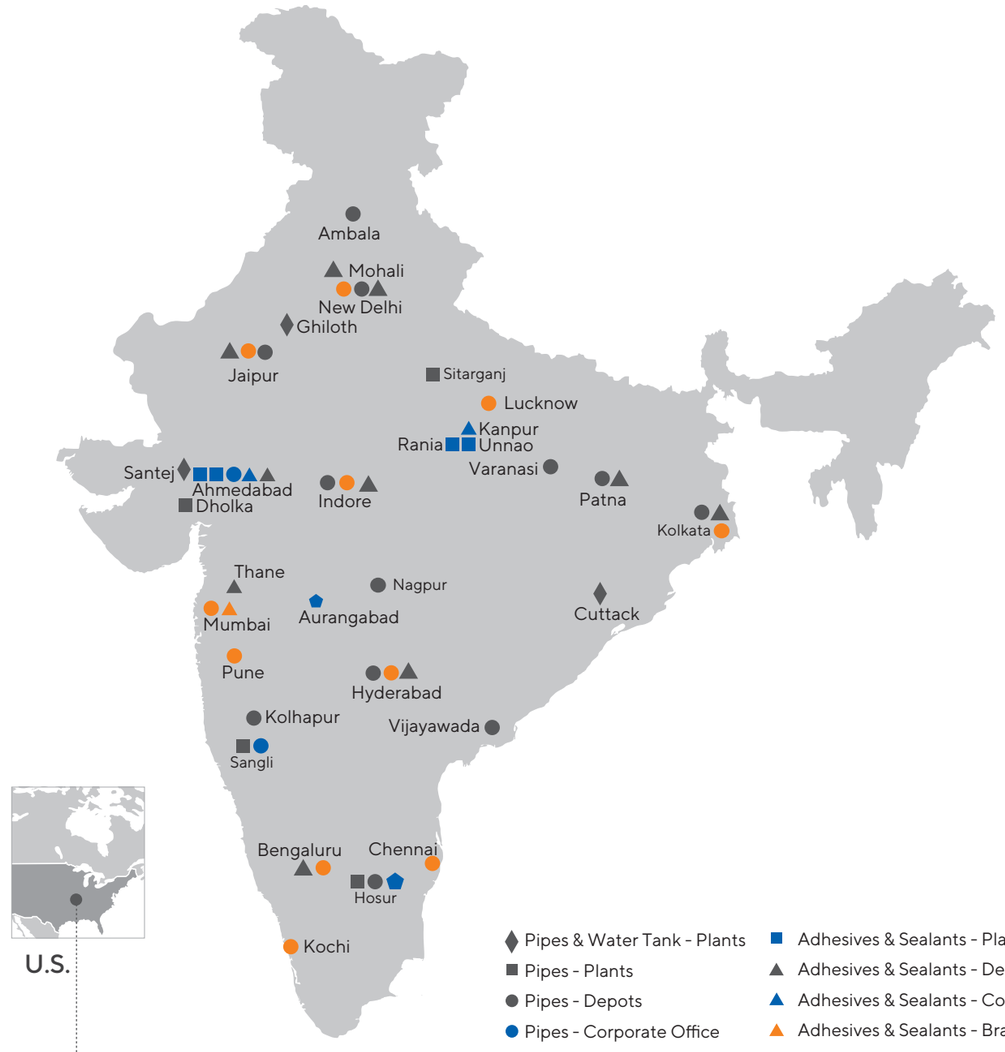
FAUCETS

SANITARYWARE



MARKETING NETWORK

Astral has a marketing network of more than 800 distributors and 30,000 dealers spread all over India with branch offices at Mumbai, Pune, Delhi, Bengaluru, Chennai, Hyderabad, Jaipur, Lucknow and Kochi. Apart from that Astral has its own warehouses at Vijaywada, Hyderabad, Delhi, Kolhapur, Kolkata, Nagpur, Indore, Patna, Varanasi, Jaipur & Hosur to deliver the material as quick as possible. More than 400 techno marketing professionals and administrative personnel are on the board to coordinate with architects, plumbing contractors and plumbers to utilize the best plumbing techniques and to get the best from the products.





ASTRAL CPVC PRO®

1st TO INTRODUCE CPVC IN INDIA





HIGHEST NUMBER OF CERTIFICATIONS

NSF Certified to NSF/ANSI 61 | IS : 15778 | IS : 17546 | UPC-I | GRIHA | MCGM APPROVED

Only Those Products Bearing The Above Marks Are Certified

STANDARDS & SPECIFICATIONS

IS:17546 - Chlorinated CPVC fittings for Potable Hot and Cold Water distribution supply

IS:15778 - Standard Specification for CPVC pipes for Potable Hot and Cold Water Supplies -Specification

ASTM D1784 - Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds

ASTM D2846 - Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Hot & Cold water distribution systems

ASTM F493 - Standard Specification for Solvent Cements for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe & Fittings

ASTM F441 - Standard Specification for Chlorinated Poly (Vinyl Chloride) (CPVC) Plastic Pipe, SCH 40 & 80

ASTM F438 - Socket- Type Chlorinated Polyvinyl Chloride Plastic Pipe Fittings. Schedule 40

ASTM F439 - Socket-Type Chlorinated Polyvinyl Chloride Plastic Pipe Fittings. Schedule 80

ASTM D2774 - Underground installation of Thermoplastic pipes

Suitable for : Plumbing

Astral CPVC Pro pipes and fittings, manufactured by Astral Limited, are made from special plastic, chemically known as Chlorinated Poly Vinyl Chloride [CPVC]. This CPVC compound shall meet cell class DP 110-2-3-2 as per IS: 15778 and a maximum service temperature up to 93°C. This compound is carefully designed in our R & D centre and backed by our expertise in manufacturing CPVC piping systems from the last 17 years, which gets excellent results in all applications for CPVC piping systems. It is a unique combination of the highest Impact resistance without any loss in pressure bearing capacity / Tensile strength or Vicat softening temperature. This will ensure the best trouble-free service and also stands notch above the initial installation issues of cracking / damages due to handling, storage and installation.

These Pipes are produced in copper tube size (CTS) from 15 mm (½") to 50 mm (2") with two different standard dimensional ratios - SDR-11 and SDR-13.5 (Class 1 & Class 2 respectively as per IS:15778). The fittings are produced as per SDR 11. The Pipes and Fittings in SDR 11 class also comply with ASTM standards. All Astral CPVC SDR 11 and SDR 13.5 pipes are made from identical CPVC compound material having the same physical properties. The CPVC fittings are manufactured from compound material that meets all the requirements as per ASTM standards.

PIPE TEMPERATURE PRESSURE RATING (°C)

Though the physical properties are common in SDR 11 and SDR 13.5, at any given temperature they have different pressure ratings due to different wall thicknesses.

GRADE	UNIT	23°C	82°C
SDR 11	psi	400	100
	kg/cm²	28.1	7.0
SDR 13.5	psi	320	80
	kg/cm²	22.5	5.6

Astral also produces CPVC Pro pipes in iron pipe size (IPS), available sizes are 65 mm (2½") to 150 mm (6") in SCH 40 and 65 mm (2½") to 300 mm (12") in SCH 80 which meets the requirements of ASTM F441. The pressure rating varies with schedule pipe size and temperature. CPVC pipes of Copper Tube Size (CTS) dimensions can also be connected to CPVC (IPS) dimensions by using IPS x CTS fittings.

NSF APPROVED

NSF International, a not-for-profit, non-governmental organization is the world leader in standards development, product certification, education and risk management for public health and safety (www.nsf.org). For 72 years, NSF has been committed to public health, safety and environmental protection. The NSF Mark is recognized for its value in international trade and is respected by regulatory agencies at the local, state, and national levels. Astral is the first Indian company to obtain approval from NSF for its CPVC products.

AVAILABLE SIZES

- SDR 11 & SDR 13.5: 15 mm (1.5cm) (½") to 50 mm (5.0 cm) (2") CTS – confirming to IS:15778 & IS:17546 and as per ASTM D2846
- SCH 40: 65 mm (6.5 cm) (2½") to 150 mm (15.0 cm) (6") IPS, as per ASTM F441 & ASTM F438
- SCH 80: 65 mm (6.5 cm) (2½") to 300 mm (30.0 cm) (12") IPS, as per ASTM F441 & ASTM F439

FIELDS OF APPLICATIONS

Hot and Cold water applications in homes, apartments, hotels, resorts, hospitals, high and low rise buildings, corporate and commercial houses, academic institutes, etc. for pure and hygienic water supply.

FEATURES AND BENEFITS

Hot and Cold water compatible: Astral CPVC Pro Piping System is compatible with both hot and cold water. It withstands very high temperatures compared to any other thermoplastic plumbing system. Many solar and electric water heaters have CPVC piping systems for heat efficiency and lower installation cost.

Corrosion resistance | Lower bacterial growth | Tough, rigid material |No Scale, pit or leach formation | Unaffected by chlorine in the water | Chemical resistance | Low thermal expansion | Easy, cold welding process | Superior insulation | Fire safety | Cost-effective



ASTRAL PEX-a PRO®

NEXT GEN HOT & COLD WATER PLUMBINGSYSTEM

A REVOLUTIONARY PIPING SYSTEM WITH EXPANSION RING TECHNOLOGY

Suitable for : Plumbing

Astral PEX-a Pro, a next-generation hot & cold plumbing system is made of cross-linked polyethylene pipes. Cross-linking technology is a process where polyethylene molecules form links between the polymeric chain, making it the next-generation plumbing system with futuristic capabilities & characteristics.

Astral PEX-a Pro system is based on expansion ring technology. The pipes & fittings are joined with simple applications of expansion using the plastic memory of the PEX-a Pro pipes. This unique joining system provides a water-tight, compact & recessed system with leak protection, easy renovation & chemical-free installation.

The PEX-a Pro plumbing system can also be installed using a manifold hydraulic system, which provides a distribution element in a special wall mount cabinet that supplies all draw-off points which are connected & controlled individually. The manifold combined with a pipe-in-pipe system ensures ease of repair & maintenance as well as leak protection.

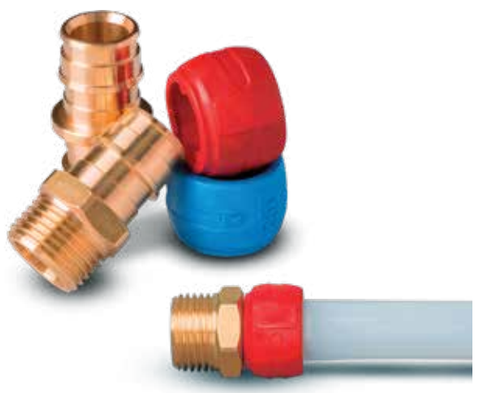
COMPONENTS OF THE PEX-A PRO SYSTEM

PEX-a PIPES: Astral Pipes uses the best high-density polyethylene (HDPE) and the most advanced peroxide cross-linking technology to offer high-performing PEX-a pipes. Astral's modern technology is based on the well-known peroxide cross-linking process (PEX-a) while using the latest high-power infrared ray ovens.

PLASTIC RINGS: The use of plastic rings, manufactured by injection moulding using special high-tech polymers enables to offer better dimensional precision in the rings that, together with a pipe stopping system, facilitate the assembly process. The rings are available in three different colours (red, blue and white) so you can make the pipelines easily identifiable.

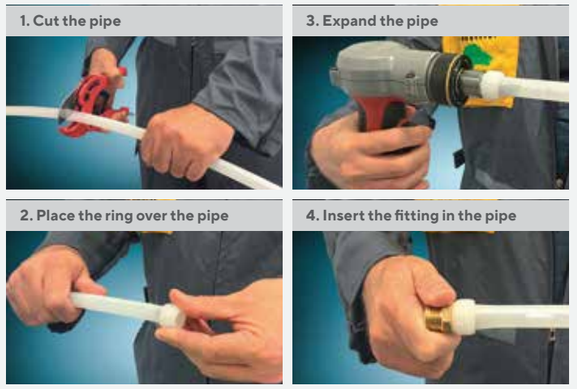
BRASS / PPSU FITTINGS: The Astral PEX-a Pro system exclusively uses high-quality brass (CW617N alloy), which complies with the most demanding EU sanitary standards.

The PEX-a Pro system is also available with PPSU (Poly Phenyl Sulfone) fittings, which are one of the highest quality plastic fittings for hot & cold water plumbing systems. By using PPSU fittings, a full plastic piping system is possible, without compromising any hydraulic properties.





JOINING SYSTEM



UNIQUE BENEFITS OF JOINING SYSTEM

WATERTIGHT: The Astral PEX-a Pro joining system guarantees an absolute watertight joint, without the need to perform reviews. The strength and duration of the joint are even greater than the pipe itself.

COMPACT: : Astral PEX-a Pro accessories don't protrude from the pipe, making it ideal for use in narrow or pladur type partitions.

RECESSED: The Astral PEX-a Pro system is one of the few systems authorized by the European Union authorities for wall embedment use.

NO WAITING TIME: The Astral PEX-a Pro system eliminates the time of waiting before you can perform the pressure test and put the installation to work immediately.

LEAK PROTECTION: Although a properly installed Astral PEX-a Pro system is secured from leakage, there may be occasions when extra precautions against the damage to the construction of a building from leakage are needed. Astral's pipe-in-pipe allows the pipe to be withdrawn and replaced, especially in solid floors or walls. Any leakage is retained within the conduit and can be detected.

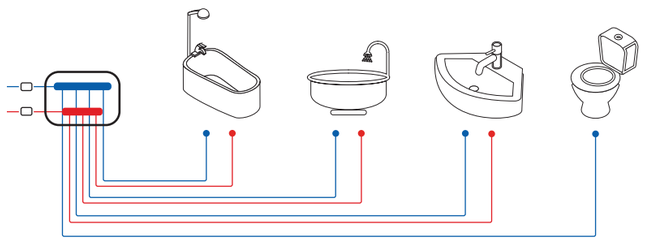
EASY RENOVATION: In addition, in a concealed pipe run without T-joints, an accidentally damaged section of pipe can be withdrawn and replaced, whilst minimising structural damage.

FEATURES AND BENEFITS

- Resistance to high pressure
- Withstands temperature up to 95°C
- Chlorine resistance
- Freezing resistance
- Highest flexibility
- Less number of joints
- High impact resistance
- Non-conductive / Non-corrosive
- Low pressure loss
- Higher flows
- Long life
- Drinking water suitability

TYPES OF INSTALLATION

- Distribution with single connection
- Pipe in pipe connection
- Tee connection
- Ceiling installation



AVAILABLE SIZES

16 mm, 20 mm, 25 mm, 32 mm
(1.6 cm), (2.0 cm), (2.5 cm), (3.2 cm)

APPLICABLE STANDARDS

ISO:15875-1

Plastic piping systems for hot and cold water installations-Crosslinked Polyethylene (PE-X)-Part 1: General

ISO:15875-2

Plastic piping systems for hot and cold water installations-Crosslinked-Polyethylene (PE-X)-Part 2: Pipes



ASTRAL Aquarius® STANDARDS REDEFINED

INDIA'S FIRST LEAD FREE PIPING SYSTEM

Suitable for : Plumbing

Astral Aquarius pipes are non-toxic and lead-free which makes them a safe material for potable water. It is also the world's most researched and thoroughly tested material which meets all international standards for safety and health. Astral Aquarius uPVC pipes being lead-free are non-toxic and hence favoured for use in applications such as potable water pipes. Astral Aquarius uPVC plumbing system utilizes NSF-approved one-step solvent cement, specifically formulated for use. Joining is accomplished quickly and efficiently utilizing inexpensive tools thereby greatly reducing labour and installation costs. Astral Aquarius uPVC solvent joint plumbing system makes its pressure bearing capacity twice than that of the threaded pipe. Astral Aquarius uPVC pipes & fittings exhibit the well-known physical characteristics and other benefits of conventional uPVC piping such as good chemical and corrosion resistance, low thermal conductivity, high strength-to-weight ratio, good impact resistance and ease of installation. Astral always recommends the use of IPS Weld-on solvent cement which is specifically manufactured to meet the requirements of ASTM D 2564. All-purpose cement should not be used. Primers manufactured for uPVC pipe are acceptable. Tests performed at respected universities and independent laboratories confirm that the Astral Aquarius uPVC plumbing system is superior to metal systems in terms of water quality effects. Astral Aquarius uPVC system is generally inert to most mineral acids, bases, salts and paraffinic hydrocarbon solutions, hence recommended for industrial application also.

ASTRAL AQUARIUS- SAFE PIPING MATERIAL FOR DRINKING WATER

FIELDS OF APPLICATIONS

- Ring lines / down take lines
- Swimming pools
- Pipes for hand pumps
- Salt water lines
- Sugar and paper industries
- Industrial process lines
- Aggressive / Corrosive fluid transportation
- Coal washing and ash handling

FEATURES & BENEFITS

- Strong and lightweight
- Durable
- Simple and leak-proof joints
- Maximum flow rate
- Good insulator
- Chemical resistance





AVAILABLE SIZES

- SCH 40: 15 mm (1.5 cm) (½") to 300 mm (30.0 cm) (12") (IPS) As per ASTM D1785, D2466
- SCH 80: 15 mm (1.5 cm) (½"") to 300 mm (30.0 cm) (12") (IPS) As per ASTM D1785, D2467

MCGM APPROVED

LEAD-FREE

CORROSION RESISTANT

UV RESISTANT

UV STABILIZED

Astral Aquarius Lead-Free Plumbing System can be used in sunlight exposed conditions. However, Astral recommends a standard grade of exterior latex paint (water-based) which will protect the system adequately.

EASY TO INSTALL

Astral Aquarius Lead-Free pipes can be cut, shaped, welded and joined easily by one-step solvent cement. PVC uses a simple, solvent cement jointing method. Tools required are very simple and inexpensive (chamfering tool and pipe cutter only) and avoid the need for an electrical source. For higher diameter (2" and above pipes) use a primer before applying solvent cement.





ASTRAL MULTIPRO™

FIRST OF ITS KIND CPVC COMPOSITE PIPES

Suitable for : Plumbing

The three-layer construction of pipe with a middle layer of aluminum provides strength to the pipe construction and eliminates possibilities of expansion and contraction, hence enables 24 hour supply of Hot and Cold water. As these pipes are used in solar applications and are exposed to different weather conditions, the reduction in expansion and contraction keeps the joints intact.

The middle aluminum layer which is joined with two CPVC layers by adhesive, provides extra strength and very good impact resistance. This works very well in case of high-rise buildings.

CPVC is such a material that resists corrosion, so it has longer life span and does not need frequent cleaning and maintenance.

The installation of Multi Pro is just like installing another CPVC Pipe. Even the existing fittings range of CPVC can be used for joining Multi Pro pipes. This makes Multi Pro a complete range with all fittings.

AREAS OF APPLICATIONS

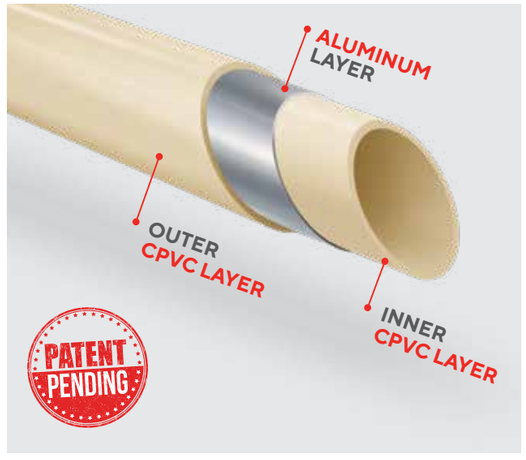
Hot and Cold Water Installation – Solar water heater -Geyser – where the Hot and cold both water is required •Open Exposure Installation – Solar water heater lines where the lines are exposed to sunlight •Buried Installation – Where pipes can be buried horizontally in concrete slabs •Concealed Installation – Where pipes can be buried vertically in concrete slabs •Building Supply Lines – All the water supply lines from main tanks to homes •Concrete-Encased Piping – As good as buried installation in concrete

AVAILABLE SIZES

Size: 1.5cm (½") to 5.0cm (2")

APPLICABLE STANDARDS

ASTM F2855 for 1.5cm (½") to 2.5cm (1")
ASTRAL for 3.2cm (1¼") to 5.0cm (2")





ASTRAL ECOPRO®

uPVC PIPES FOR RECLAIMED WATER

LEAD-FREE

Suitable for : Plumbing

Astral Eco Pro uPVC lead-free plumbing pipes can be used to transfer cold and non-potable pressurized treated water which is reclaimed from different usage conditions like wastewater from sinks, shower drains, washing machine, bath tubs, dishwasher etc. Astral Eco Pro pipes can be identified by 'Purple Colour' which is universal symbol of recycled water and can be differentiated easily. Reclaiming wastewater can help to prevent depleting water resources and help to maintain balance in ecosystem.

PRODUCTS APPLICATIONS

Astral EcoPro pipes are being used for sustainable applications and Green Building systems for

- Irrigation and Landscaping
- Watering and dust control for under construction buildings
- Public utilities for non-potable application
- Industries
- Residential and commercial buildingflush lines

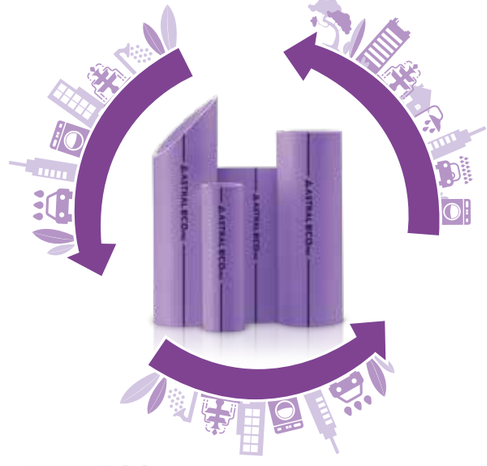
APPLICABLE STANDARDS

ASTM D1784	Standard Classification Systemv and Basis for Specification for Rigid Poly Vinyl Chloride (PVC) Compounds and Chlorinated Poly Vinyl Chloride (CPVC) Compounds
ASTM D1785	Standard Specification for Poly Vinyl Chloride (PVC) Plastic Pipe, Schedules 40, 80, and 120

AVAILABLE SIZES

PIPES

- SCH 40: 15 mm (1.5 cm) (½") to 50 mm (5.0 cm) (2") (IPS)
- SCH 80: 15 mm (1.5 cm) (½"") to 50 mm (5.0 cm) (2") (IPS)
- Other Sizes Upto 300 mm(30 cm)(12") Available Upon Request



FITTINGS

- AS PER ASTM D2466 & D 2467 (AQUARIUS)



ASTRAL SILENCIO®
High Density Low Noise System

THE COMPLETE LOW NOISE SYSTEM

Suitable for : Drainage

Silence is an important essential of human living. Seldom we experience true silence in our surroundings. It is precisely this pleasant quietness that distinguishes the Astral Silencio low noise discharge system from others.

The Complete Low Noise System – Just trust what you hear

Our unique Astral Silencio low noise system is an innovative product made of mineral-reinforced polypropylene. This base material provides excellent mechanical and acoustic properties of Astral Silencio. Made with a high molecular structure, which enables absorption of airborne sound and structure-borne sound. Sound energy does not spread over the pipe wall.

Pipe & Fittings both have 1.9 gm/cc density

THE OUTSTANDING FEATURE OF ASTRAL SILENCIO IS OUR 3 LAYER CONSTRUCTION AND SPECIAL SOCKET JOINT PIPE STRUCTURE

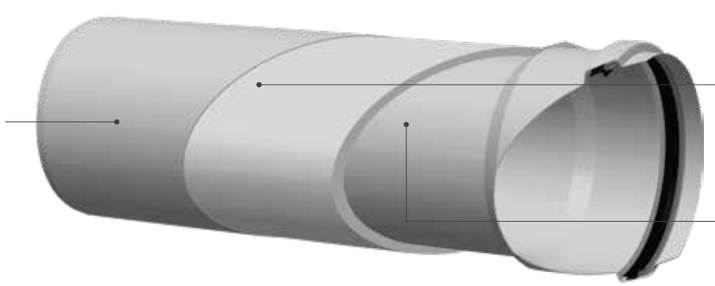
- **EXTERNAL LAYER –** PP

  The tough protective shell of the pipe. Sturdy and highly impact resistant.
- **MIDDLE LAYER –** MINERAL REINFORCED PP

  Mineral-reinforced plastic provides very high stability and establishes the superior noise-insulating effect.
- **INTERNAL LAYER –** PP

  Provides a superior flow performance with its smooth structure. It is resistant against high water temperatures.

PIPE STRUCTURE



EXTERNAL LAYER – POLYPROPYLENE
- Extremely Tough
- Sturdy
- Impact Resistant

MIDDLE LAYER – MINERAL REINFORCED POLYPROPYLENE
- Very High Ring Stiffness
- Excellent Acoustic Properities

INTERNAL LAYER – POLYPROPYLENE
- Superior Flow Performance
- Resistant against high water temperatures and chemicals



FIELDS OF APPLICATIONS

Drain and sewer systems in residences, commercial complexes, resorts, hospitals, academic institutes, industries, etc.

ADVANTAGES

- Outstanding noise-insulation values
- Easy installation
- High impact resistance
- As strong as metal
- Chemical resistance
- No special clamps / Hangers required
- Extremely tough
- Resistance to hot water
- Smooth inner surface

MCGM APPROVED

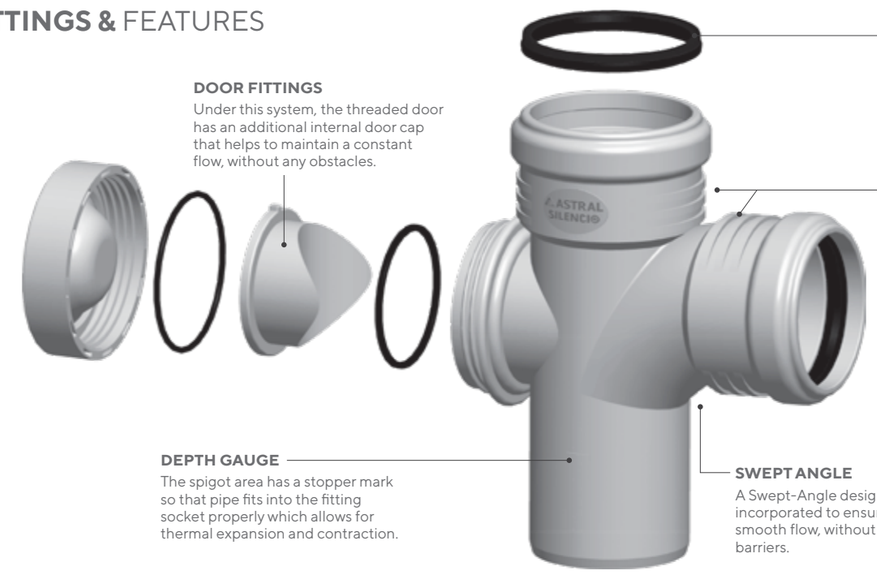
Only Those Products Bearing The Above Marks Are Certified

ASTRAL SILENCIO - A COMPLETE SYSTEM WITH PIPE SIZES FROM DN 40 TO 200 AND COMPLIMENTED BY A FULL RANGE OF FITTINGS

The comprehensive syst`em offers the flexibility of an extensive choice, excellent quality and reliability.

Nominal Outside Diameter DN		Mean Outside Diameter (mm)		Wall Thickness (mm)
mm (in.)	cm	Min	Max	
40 (1¼)	4.0	40.0	40.3	2.2
50 (1½)	5.0	50.0	50.3	4.0
63 (2)	6.3	63.0	63.3	4.0
75 (2½)	7.5	75.0	75.3	4.5
110 (4)	11.0	110.0	110.4	5.3
125 (5)	12.5	125.0	125.4	5.3
160 (6)	16.0	160.0	160.5	5.3
200 (8)	20.0	200.0	200.6	6.2

FITTINGS & FEATURES



DOOR FITTINGS
Under this system, the threaded door has an additional internal door cap that helps to maintain a constant flow, without any obstacles.

PUSH-FIT SOCKET WITH SPECIAL RING
The Ring allows free movement during hydraulic tightness and thermal expansion.

EXTERNAL RIBS
The External Ribs on the outer side of the socket provides extra strength to the socket.

DEPTH GAUGE
The spigot area has a stopper mark so that pipe fits into the fitting socket properly which allows for thermal expansion and contraction.

SWEPT ANGLE
A Swept-Angle design is incorporated to ensure a smooth flow, without any barriers.



ASTRAL DRAINPRO™

ADVANCED PP SWR SYSTEM WITH THREE LAYERS TECHNOLOGY

Suitable for : Drainage

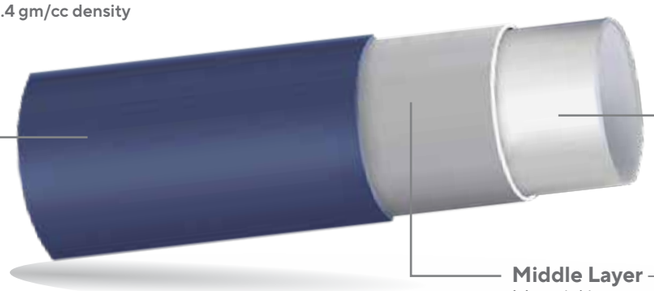
Astral Drainpro is unique piping system manufactured using PP mineral filled materials and designed to cater most challenging drainage and sewerage applications. The system is perfect replacement of conventional system by overcoming the limitations encountered while using such traditional piping systems. Astral DrainPro offers superior piping experience in all aspects – be it Mechanical, Thermal, Chemical or Acoustic properties compare to such traditional systems. The system has high temperature resistance (long term 90°C & short term 95°C) and excellent chemical resistance (pH 2 to pH 12) over broader range of chemicals.

Astral Drainpro has an extensive range of pipes and fittings ranging from 50mm to 160mm including extensive range of fittings and accessories which makes it ideal choice of drainage and sewerage system for building industry. There are many specialized fittings like 75mm water seal traps with height risers – available in different combinations – gives enormous design opportunities to specifier and designers. The push fit system is universally accepted and can be easily used with different trade solution.

PIPE STRUCTURE

DrainPro pipes are manufactured using state of the art multilayer piping technology which impart excellent properties to pipes which are very essential to have superior performance of drainage system.

Pipes & Fittings both have 1.4 gm/cc density



Outer Layer –
Manufactured using PP material – impart excellent Impact-resistant and UV resistant

Inner Layer –
Manufactured using PP material – imparts smooth flow and abrasion resistance

Middle Layer – Mineral Reinforced PP Material imparts Rigidity & Acoustic Performance



AREA OF APPLICATIONS

- Commercial Kitchens
- Residential Buildings
- Chemical Labs

FEATURES AND BENEFITS

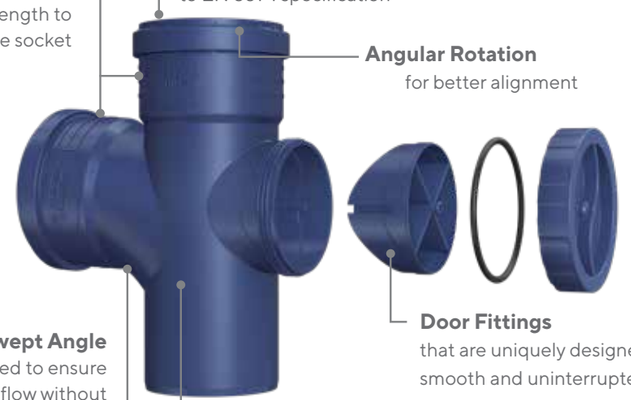
- High Impact Strength And Fatigue Resistance
- Smooth And Abrasion Resistant Inner Surface
- Eco-friendly
- Uv Stability And Long Life
- Lower Thermal Expansion
- Simple And Quick Joining
- Lower Cost
- Shock And Vibration Proof

STANDARDS AND SPECIFICATIONS

As per BS EN 1451

NOMINAL OD (DN)		MEAN PIPE OD (MM)		THICKNESS (MM)	
(CM)	(MM)	MIN.	MAX.	MIN.	MAX.
4.0	40	40.0	40.3	1.8	2.0
5.0	50	50.0	50.3	1.8	2.2
7.5	75	75.0	75.4	2.3	2.8
9.0	90	90.0	90.4	2.8	3.3
11.0	110	110.0	110.4	3.4	4.0
16.0	160	160.0	160.5	4.9	5.6

FITTINGS & WITH VALUE ENGINEERING



External Ribs
on the outer side provide extra strength to the socket

Rubber Rings
are made from SBR rubber complying to EN 681-1 specification

Angular Rotation
for better alignment

Door Fittings
that are uniquely designed with inner cap for smooth and uninterrupted flow

Swept Angle
design is incorporated to ensure a smooth flow without any barriers

Depth Gauge
at the spigot area has a stopper mark so that pipe fits into the fitting socket properly, allowing thermal expansion and contraction



ASTRAL DRAINMASTER®

SUPERIOR SWR DRAINAGE SYSTEM FOR LEAK PROOF JOINTS

Suitable for : Drainage

Astral DrainMaster is a uPVC conventional drainage system for soil, waste and rainwater. This system enables fast and efficient removal of waste without blockage and leakage. Its high impact strength, chemical and corrosion resistance. Long life and virtually zero maintenance have made Astral DrainMaster preferred drainage and rainwater system among architects, builders and plumbing contractors. The state-of-the-art equipment and virgin raw material are used to produce the Astral DrainMaster SWR system.

Astral Drain Master pipes and fittings are manufactured as per internationally accepted quality standards and specifications. They are tested for correct thickness and dimensional accuracy, randomly and batch-wise in our most modern quality assurance laboratory.

AREA OF APPLICATIONS

Astral DrainMaster Type-A pipes are recommended for use in ventilation and rainwater applications. While Type-B pipes are recommended for soil and discharge applications.

EASY TO INSTALL

Astral DrainMaster pipes can be cut, shaped and joined easily in one step using rubber lubricant. uPVC uses a simple, rubber lubricant jointing method. Tools required are very simple and inexpensive (chamfering tool and pipe cutter only) and do not require an electrical source.







FIELDS OF APPLICATIONS

Drain & sewer systems in residences, commercial complexes, resorts, hospitals, academic institutes, industries etc.

IS : 13592 IS : 14735

Only Those Products Bearing
The Above Marks Are Certified

LEAK-PROOF EASY TO INSTALL COST EFFECTIVE

FEATURES AND BENEFITS

- Saves labour and time
- 100% leak-proof
- Dimensional accuracy
- High flow rates, no choking
- UV protected

AREAS OF APPLICATIONS

Astral DrainMaster Type A pipes are recommended for use in ventilation and rainwater applications while, Type B pipes are recommended for soil and discharge applications.

AVAILABLE SIZES

RINGFIT:

Type A - 75 mm (7.5 cm), 90 mm (9.0 cm), 110 mm (11.0 cm) & 160 mm (16.0 cm)

Type B - 75 mm (7.5 cm), 90 mm (9.0 cm), 110 mm (11.0 cm) & 160 mm (16.0 cm)

SELFIT:

Type A - 75 mm (7.5 cm), 90 mm (9.0 cm), 110 mm (11.0 cm) & 160 mm (16.0 cm)

Type B - 75 mm (7.5 cm), 90 mm (9.0 cm), 110 mm (11.0 cm), 160 mm (16.0 cm), 200 mm (20.0 cm), 250 mm (25.0 cm) & 315 mm (31.5 cm)











PIPES ARE SUBJECT TO TESTS LIKE

Tensile strength • Reversion • Vicat softening temp. • Water tightness of joint • Impact strength • Stress relief test • Exposure to sunlight



ASTRAL Foamcore® PVC PIPE

STRONG AND LIGHT WEIGHT DRAINAGE SYSTEM

Suitable for : Drainage

Astral Foamcore pipes are .basically multilayer pipes having outer and inner layers of conventional PVC and the middle layer of foamed PVC. Outer and inner layers are designed to take the load and the middle layer of foamed PVC gives rigidity and maintains the shape of the pipe under load. It reduces the total weight of the pipe and makes it light when compared to solid wall PVC pipes.

The pipe is typical of solid wall PVC under load and the type of distortion is normally expected. The Astral Foamcore pipe on the right, under equal load, distributes the load more evenly and does not show the same amount of distortion, as it has a unique "I-Beam" structure. Due to its ability to absorb the load, Astral Foamcore pipes are most suitable for underground drainage systems, where soil exerts a lot of pressure on pipe surfaces. In solid wall pipes, this soil pressure will rupture the pipe after some time where Astral Foamcore pipes give better life as foamed PVC layer will absorb pressure and make pipes "stress-free" in working conditions.

PRODUCT STANDARDS

Astral Foamcore pipes are manufactured as per Indian and equivalent to international standards published under structure wall pipes for drainage and sewerage and are mainly based on stiffness classes. These specifications are very well adopted at global levels and are in use for more than 25 years.

UNIQUE FEATURES AND BENEFITS

Astral Foamcore uPVC pipes are suitable for residential and commercial drain, waste & vent piping systems for both underground and above-ground applications with top quality raw materials and state-of-the-art processing technology, Astral Foamcore pipes meet all industrial standards in addition to our rigorous quality control standards.

FOAMCORE uPVC PIPES

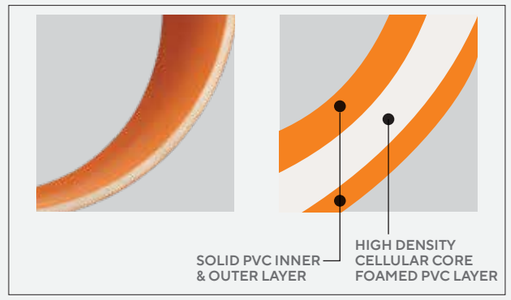
RINGFIT PIPES

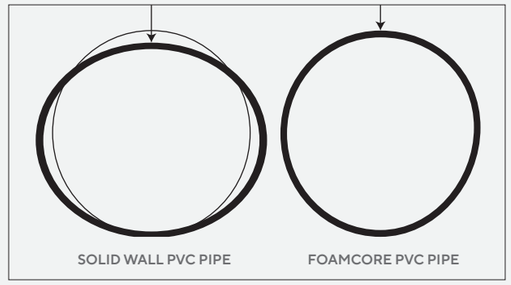
The socket has a groove inside for a rubber ring. The rubber ring ensures a trouble-free water-tight joint with allowance to thermal expansion /contraction. One end of the pipe is plain and other end is self-socketed with an integral groove to hold the rubber gasket. When joined with a rubber ring, the joint formed is a trouble-free, water-tight one, ready to take care of thermal expansion / contraction.

SELFIT PIPES

Selfit pipes are socketed on an automatic socketing machine with self-socket length (without groove). Such pipes are to be joined with solvent cement. One end of the pipe is plain and the other end is self-socketed. The pipes when joined using solvent cement, form a permanent water-tight joint.







FEATURES & BENEFITS

- Light weight & strong
- Wide range & compatibility
- Easy to install
- Maximum flow rate
- Longer service life
- Cost saving
- Chemical and corrosion resistance
- Non-toxicity, Non-conductor

IS:16098 (PART-1)

Only Those Products Bearing The Above Marks Are Certified

AVAILABLE SIZE

Astral Foamcore pipes are available in 110 mm to 315 mm size, selfit and ringfit types with different stiffness classes mainly categorised as SN2, SN4 & SN8. SN2 pipes are recommended for above ground applications while SN4 & SN8 pipes are recommended for below ground applications depending on the level at which these pipes have to be installed.

- OD 110 mm (11.0 cm) with stiffness class SN4 (SDR 41) & SN8 (SDR 34)
- OD 160 mm (16.0 cm), 200 mm (20.0 cm), 250 mm (25.0 cm) & 315 mm (31.5 cm) with stiffness class SN2 (SDR 51), SN4 (SDR 41) & SN8 (SDR 34)

FIELDS OF APPLICATIONS

Drain and sewer systems in residences, commercial complexes, resorts, hospitals, academic institutes, industries etc.





ASTRAL D-Rex®

DOUBLE WALLED CORRUGATED PIPES

MCGM APPROVED

IS:16098(Part-2)

Only those products bearing the above marks are certified

Suitable for : Drainage Urban Infrastructure

PIPES FOR NON-PRESSURE UNDERGROUND DRAINAGE AND SEWERAGE APPLICATION.

D-Rex is an innovative product aptly described as a structured wall piping system of PE/PP with a smooth internal and corrugated (profiled) external surface. The corrugated (profiled) external surface of the D-Rex pipes gives the product excellent ring stiffness (load-bearing capacity). Unlike plain pipes, D-Rex pipes do not deform under vehicular traffic load. Furthermore, since these pipes are moderately flexible, they can be aligned comfortably even in gradually bending paths. The inner wall, which is fused with the outer wall, is smooth and facilitates the laminar flow of liquid. This results in lesser possibilities of pipe clogging, deposition of debris in the pipe path, etc. D-Rex stands high as compared to the conventional options owing to its advantages and cost-economic viability and is a popular product among the end-users and contractors.

AVAILABLE SIZES

INNER DIAMETERS

75 mm (7.5 cm), 100 mm (10.0 cm), 135mm (13.5 cm), 150 mm (15.0 cm), 170 mm (17.0 cm), 200mm (20.0 cm), 250 mm (25.0 cm), 300mm (30.0 cm), 400 mm (40.0 cm), 500 mm (50.0cm), 600 mm (60.0cm), 800mm (80.0 cm)

STIFFNESS CLASSES

SN 4 & SN 8

AVAILABLE FITTINGS

Various types of fabricated / moulded accessories are available on-demand such as:

• Bends • Reducers • End Cap • Couplers • Single Y • Tee etc.

APPLICATION

Sewerage and Drainage • Collectors for Sub-Surface Drainage • Culvert and Highway Drainage • Effluent / Wastewater Transport Network • Rainwater / StormWater Collection Network • Stormwater Drainage Network • House Connections

SALIENT FEATURES

- Excellent load-bearing capacity
- Low manning's Roughness Coefficient 'n' – 0.009
- High Hazen William's Coefficient 'c' – 150
- Chemically inert
- Abrasion resistant
- Flexible and fatigue resistant
- Excellent anti-corrosive properties
- Suitable for any aggressive climatic conditions
- Corrugated profile gives excellent soil bonding



ASTRAL DRAIN HULK®

PE / PP INSPECTION CHAMBER AND MANHOLE

MCGM APPROVED

Suitable for : Drainage Urban Infrastructure

INSPECTION CHAMBERS

Astral's innovative design for 315 mm, 355 mm & 450 mm bring unmatched flexibility to the underground drainage market. The joints & seals are designed in a way that they can accommodate the movement of connecting pieces up to 3° in any direction. Astral also introduces the Drain Hulk with 500 mm, 600 mm inspection chambers & 800 mm, 1000 mm manhole for the public sewer line.

GULLIES & SURFACE CHANNEL GULLIES

A gully holds water like a trap, to stop foul odours of the sewer from reaching the surface. Its purpose is to collect wastewater from the ground floor bathrooms, kitchens and utility rooms or rainwater from paved areas or roofs.

VARIOUS TYPE OF CHAMBER BASES



INSPECTION CHAMBERS & MANHOLE AVAILABLE SIZES

Sizes (mm)	Inlet's (mm)	Outlet (mm)	Cover (mm)	Person entry
315	110	110	315	No
355	110-160	110-160	315	No
450	110-160	110-160	450	No
500	110-160	110-160	500	No
600	110-250	110-250	600	No
800	110-250	110-250	600	Yes
1000	110-315	110-315	600	Yes

FIELDS OF APPLICATIONS

Astral Underground Drainage System is ideal to use in single house application to multi floors buildings, hotels, hospitals, shopping malls, academic institutes up to the main lines.

PRODUCT RANGE

315 mm (31.5 cm), 355 mm (35.5 cm) & 450 mm (45.0 cm) with 8 different type of chamber base and with riser and top cover. 500 mm (50.0 cm), 600 mm (60.0 cm), 800 mm (80.0 cm) & 1000 mm (100.0 cm) Chambers / Manholes are available in 5-Inlet base & 3-Inlet base options.



ASTRAL AquaSAFE®

LEAD- FREE uPVC PIPE FOR AGRICULTURE & WATER TRANSPORT SYSTEM

Suitable for : Agriculture

Astral Aquasafe system offers a wide range of uPVC pressure pipes and fittings. Pressure pipes are manufactured confirming to IS: 4985-2021 (TYPE A) and are available in 20 to 400 mm sizes in different pressure classes. Astral Aquasafe pipes and fittings can be joined together by Astral uPVC solvent cement. Astral Aquasafe fittings are manufactured as per IS: 7834 and as well as the company's standards. Astral Aquasafe pipes are manufactured from PVC raw material and hence they are corrosion-proof forever.

Wide range of applications in potable water transportation for agriculture farms, tube-wells and bore-wells. They are also applied as drain pipes in residential, commercial and industrial buildings. They have a life cycle of up to 50 years with saves on replacement costs

- Astral Aquasafe uPVC pressure pipes with selfit jointing system ensure leak-proof jointing system for optimum results
- Astral Aquasafe uPVC pressure pipes are manufactured on the most sophisticated state of the art machines to ensure a superior product at every time
- Astral Aquasafe uPVC pressure pipes offer high strength and durability
- Astral Aquasafe uPVC pressure pipes are non-reactive with acidic and alkali substances in water. They are ideal for drain water discharge as well as most of the chemicals
- Astral Aquasafe uPVC pressure pipes are UV stabilized and hence suitable for outdoor applications
- Astral Aquasafe uPVC pressure pipes are manufactured under highest quality standards which ensure the reliability of the product

FIELDS OF APPLICATIONS

These pipes and fittings are used for a variety of applications like agriculture, irrigation, water supply, industrial process lines, swimming pools and firefighting mains, etc. These pipes are superior to CI, GI or R.C.C. pipes and offers multiple advantages like lightweight, easy and fast installation, excellent corrosion and chemical resistance, high flow rates, long life and economy.



AVAILABLE SIZE & TYPES

PIPES:

- Class 1 (2.5 kgf/cm²): 90 mm (9.0 cm) to 400 mm (40.0 cm) OD
- Class 2 (4 kgf/cm²): 63 mm (6.3 cm) to 400 mm (40.0 cm) OD
- Class 3 (6 kgf/cm²): 40 mm (4.0 cm) to 400 mm (40.0 cm) OD
- Class 4 (8kgf/cm²): 25 mm (2.5 cm) to 400 mm (40.0 cm) OD
- Class 5 (10kgf/cm²): 20 mm (2.0 cm) to 400 mm (40.0 cm) OD
- Class 6 (12.5 kgf/cm²): 20 mm (2.0 cm) to 400 mm (40.0 cm) OD
- Plumbing (16 kgf/cm²): 20 mm (2.0 cm) to 50 mm (5.0 cm) OD

IS : 4985-2021 | IS : 7834 | IS:10124

Only Those Products Bearing The Above Marks Are Certified

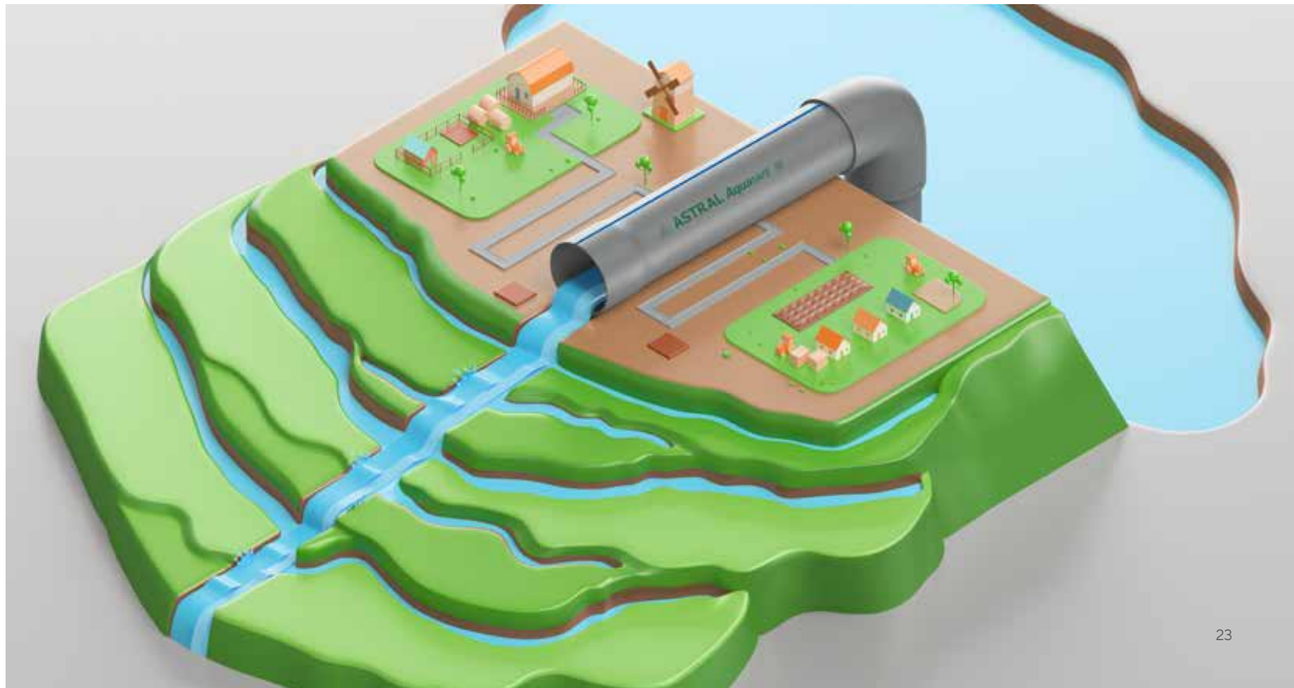
CORROSION RESISTANT | UV RESISTANT | COST EFFECTIVE | LEAD-FREE

FEATURES & BENEFITS

- Manufactured from quality raw material
- Easy handling, transportation & installation
- Excellent chemical resistance
- High strength and durability
- UV stabilized
- Non-conductive
- Longevity of life cycle
- Ease of use
- Better flow for optimum yields
- Leak-proof jointing

JOINING METHOD

- Selfit joining
- Ringfit joining







FIELDS OF APPLICATIONS

Water rising for submersibles and jet pumps for irrigation, domestic and industrial applications. Ideally suitable for long term use in salty, sandy and chemically aggressive water.

FEATURES & BENEFITS

- Better flow for optimum yields
- Leak-proof jointing
- High strength and durability
- Manufactured from quality raw material
- Easy handling, transportation & installation
- Chemical resistance
- Non conductive
- Longevity of life cycle
- Ease of use

CORROSION RESISTANT | SAFE FOR DRINKING WATER | CHEMICAL RESISTANT | COST EFFECTIVE

ASTRAL BORE-WELL® LEAD FREE UPVC COLUMN PIPES

HEAVY METAL & LEAD FREE COLUMN PIPES FOR SUBMERSIBLE PUMP

Suitable for : Agriculture

Astral Bore-Well Column pipes have added advantage of unique features and benefits compared to conventional column pipes available today. It undergoes stringent testing under critical field conditions to meet or exceed the actual field requirements of products available for similar applications.

DOUBLE SS STUD PIN LOCK SYSTEM (DESIGN PATENT PENDING)

Every pipe is fitted with a coupler having 'Double SS Stud Pin Lock System' a unique system developed by Astral, which ensures that during installation, application or removal of the system, the coupler will never de-thread from the pipe.

SPECIAL COMPOUND

Astral Bore-Well Column Pipes are manufactured from the 'HEAVY METAL FREE" uPVC compound which is specially developed by using "JAPANESE TECHNOLOGY' to sustain the best Column loads, pressure and also to withstand the high impact during handling, storage and installation. Due to this special compound, the Tensile property of pipe increases which is tested rigorously using modern testing equipment.

100% HYGIENIC / SAFE FOR DRINKING WATER

Supply of drinking water is 100% hygienic and safe as being pumped through Astral uPVC Bore-Well Column Pipes manufactured from special HEAVY METAL FREE compound right from the origin of water source beneath under the earth at maximum depth.

EPDM RING & SQUARE THREADS

EPDM RING: Specially designed 'O' rings provided on the threads makes the joints watertight and absorb pump vibrations. These rings are made from EPDM rubber which is the most suitable for drinking water option.

SQUARE THREADS: Unique square threads made on CNC machines provide sufficient grip and additional strength against tensile load. Thus the joint becomes fairly strong with sufficient factor of safety to take care of a load of the entire assembly with pump weight. These specially designed threads also make it suitable for easy fitment.

THICK & THIN PROCESS: The pipe ends are especially given the effect of additional wall thickness by using the 'Thick & Thin' process to compensate for the strength and load-bearing capacity caused due to threading of pipes. The effect of Thick & Thin is given to all sizes considering the working conditions & load factor.

ANNEALING ON PIPES: Every pipe is annealed during manufacturing which is a very special technique developed by Astral. This will enhance the mechanical properties of pipes which make sure that the pipes will perform best during application.

WIDE APPLICATIONS

Water rising for submersibles and jet pumps for irrigation, domestic and industrial applications. Ideally suitable for long-term use in salty, sandy and chemically aggressive water.

AVAILABLE SIZE

- 1" (25 mm) : V4 Cub, V4 Bell End, V4, Medium Bell End, Medium, Crystal bell end, Crystal, Standard
- 1 ¼" (32 mm) : V4 Eco, V4 Eco Bell End, V4 Cub, V4 Bell End, V4, Medium Bell End, Medium, Crystal bell end, Crystal, Standard, Standard Plus, Heavy, Heavy Plus, Super Heavy
- 1 ½" (40 mm) : V4 Bell End, V4, Medium, Crystal, Standard, Heavy, Super Heavy
- 2" (50 mm) : Eco Medium, Eco Medium Plus, Medium, Crystal, Standard, Heavy, Super Heavy
- 2 ¼" (50 mm) : Super Heavy
- 2 ½" (65 mm) : Medium, Eco Standard, Standard, Standard Plus, Heavy, Super Heavy
- 3" (80 mm) : Medium, Eco Standard, Standard, Standard Plus, Heavy, Super Heavy
- 3 ½" (90 mm) : Heavy Plus
- 4" (100mm) : Eco Medium, Medium, Standard, Standard Plus, Heavy, Super Heavy
- 5" (140 mm) : Standard, Heavy, Super Heavy

SHORTLY INTRODUCING: 6" (165 mm)





ASTRAL CASE - WELL®

CASING FOR BOREWELL

EXTRA CARE FOR BORE-WELL

IS:12818

Only Those Products Bearing
The Above Marks Are Certified



ASTRAL UNDER GROUND®

DRAINAGE SYSTEMS

PVC UNDERGROUND DRAINAGE & SEWERAGE SYSTEM

IS:15328

Only Those Products Bearing
The Above Marks Are Certified

Suitable for : Agriculture

Through our innovative approach, we are offering an extensive array of durable uPVC Casing Pipes that are used for various underground applications. Developed using qualitative PVC compound, our leak-proof Casing Pipes are known for their easy installation, anti-corrosiveness and precise dimensional tolerance. We manufacture these pipes in different sizes and dimensions in accordance with the standard norms.

Astral Case-well uPVC casing Pipes are light in weight and are easy to handle & install. It gives excellent resistance even under the harshest of water conditions. So, there are no purity worries from corrosion of the metal pipe.

Astral Case-well pipes are durable and free from weakness caused by rusting, weathering and chemical action and hence last for lifetime. uPVC casing pipes are easy to install. The tools required are very simple and inexpensive and do not require any electrical source.

AVAILABLE SIZE & TYPE

CS - 11.5 cm (4.5") to 25.0 cm (10")

CM - 4.0 cm (1.5") to 25.0 cm (10")

CD - 20.0 cm (8") and 25.0 cm (10")

Super Heavy Plus - 16.5 cm (6.5")

Also, Available In Different SDR Series:
6.3 cm (63 mm- 2") to 20.0cm (200 mm-8")
- 6 Mtr Plain Solvent Cement Socketed Type
- 3 Mtr Threaded Type

SCREEN/SLOTTED PIPES

Screen or Slotted pipes are used for casing in groundwater percolation to allow water to enter inside the well. These pipes can also be used to recharge the groundwater level through the rainwater harvesting pit.

SPECIAL FEATURES

Horizontal slots to get maximum water yield. Special male-female square thread to ensure better strength • Very high impact strength to resist external pressure

BENEFITS OF SCREEN/SLOTTED PIPES

Very effective way to recharge the groundwater • Improve groundwater levels and availability • Conserve the surface water runoff during monsoon • Main sewer can be protected from flooding during monsoon by reduced volume of discharge of rainwater

FEATURES & BENEFITS

Easy to handle & lightweight • Corrosion resistance • Durable, Non-toxic & maintenance-free • Quick installation

APPLICATIONS

• Case-well casing pipes are used in irrigation, domestic, industrial & mining fields.

Suitable for : Drainage

Astral UnderGround drainage and sewerage PVC piping system is suitable for both commercial and residential drainage and sewerage application including both Urban and Rural areas. It offers a cost-effective, high-performance, strong and easy to install drainage system to meet today's needs of the drain and sewer market. Astral UnderGround Drainage pipes are manufactured with the-state-of-the-art equipments and undergo stringent tests in our ultra-modern quality assurance laboratory. Astral UnderGround Drainage pipes are available with solvent weld joint as well as ring joining sockets.

PRODUCT RANGE

Pipe OD 110 mm to 315 mm • Types SN 2 (SDR 51), SN 4 (SDR 41) & SN 8 (SDR 34) • Selfit & Ringfit joining system

PIPE SPECIFICATIONS

Nominal Size (cm)	Outer Diameter (mm)		Thickness (mm)					
			SN 2 (SDR 51/S25)		SN 4 (SDR 41/ S20)		SN 8 (SDR 34/S16.5)	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
11.0	110.0	110.4	-	-	-	-	3.2	3.7
16.0	160.0	160.5	3.2	3.7	4.0	4.6	4.7	5.4
20.0	200.0	200.6	3.9	4.5	4.9	5.6	5.9	6.7
25.0	250.0	250.8	4.9	5.6	6.2	7.0	7.3	8.3
31.5	315.0	316.0	6.2	7.0	7.7	8.7	9.2	10.4

FEATURES & BENEFITS

Easy and quick installation, handling & transportation • Lightweight & strong • Hygienic and leak-free joints • Smooth inner bore for a better flow rate of water and prevent the build-up of deposits & scaling • Lower installation & maintenance cost • Excellent stiffness and impact resistance • Very good resistance to abrasion • Immune to galvanic or electrolytic corrosion thus ensuring long life below the ground • Durable and long service life • Minimizes excavation cost

WIDE APPLICATIONS

Drainage and sewerage applications in residences, commercial complexes, hospitals, educational institutes, resorts, industries, townships, etc.

ASTRAL TANKS

THE COMPLETE WATER STORAGE SOLUTION



Focusing on innovations on every curve, Astral has come up with another category first in the Water Tank segment! A water tank with Anti-microbial Technology against bacteria, virus, fungi and algae. Astral Water Tanks are equipped with an innovative inner layer that has embedded active copper particles. This unique technology with active copper fortification keeps the water fresh, clean and free from harmful microbes at all times. In this technology, active copper is impregnated within the polymer system so that the leeching of copper to the human body over threshold limits is prevented and at the same time, the Anti-viral / Anti-microbial copper shield remains active throughout its life cycle. As this unique protective shield regularly neutralizes the virus / bacteria, frequent deep cleaning of the tank is not required. This technology provides round the clock protection as the surface does not allow any bio-film (of bacteria / virus / fungi / algae) to develop hence the water remains free from all types of harmful biological contamination.

INDIA'S 1ST WATER TANK WITH 'Anti-viral* Copper Shield'

99.9% PROTECTION* AGAINST BACTERIA, ALGAE, FUNGUS AND VIRUS INCLUDING SARS-CoV-2

*[For usage under normal conditions • Testing is done as per ISO 21702: 2019, ISO 22196, ASTM G 29 and JIS Z2801 by NABL accredited Lab for specific strain of virus & microbes and samples are tested for treated and non-treated inner surface layer of water tank • Product does not claim to cure or prevent living species from any disease including Covid-19 • Follow all precautions and guidelines specified by G.O.I. • For more details refer FAQs of water tanks on www.astralpipes.com Anti-Viral Copper Shield feature is available only in Astral Cleo and Astral Vito variants]

ASTRAL Cleo 4 LAYER WATER TANK

INDIA'S 1ST WATER TANK WITH 'Anti-viral* Copper Shield'



Layer - 1: Resists the UV rays - White or Coloured (Blue / Yellow / Green)

Layer - 2: Blocks the sunlight - Black

Layer - 3: Helps to control the temperature - Grey

Layer - 4: Protects the water from microbes - Sky Blue

Available Capacity (Litre):
500 | 750 | 1000 | 1500 | 2000 | 3000 | 5000 | 7500 | 10000

Available Colours: ○ ● ● ●

*Blue / Green / Yellow colours are available on request and the minimum order quantity should be 20 units or more for each colour

UV STABILIZED · AIR VENTILATION · FOOD GRADE · BUILT STRONGER · ANTI MICROBIAL



ASTRAL Vito 3 LAYER WATER TANK

INDIA'S 1ST WATER TANK WITH 'Anti-viral* Copper Shield'

Layer - 1: Resists the UV rays - White or Coloured (Blue / Yellow / Green)

Layer - 2: Blocks the sunlight - Black

Layer - 3: Protects the water from microbes - Sky Blue

Available Capacity (Litre): 500 | 750 | 1000 | 1500 | 2000 | 3000 | 5000 | 7500 | 10000

Available Colours: ○ ● ● ●

UV STABILIZED · AIR VENTILATION · FOOD GRADE · BUILT STRONGER · ANTI MICROBIAL

ASTRAL Sylo 2 LAYER WATER TANK

Layer - 1: Resists the UV rays - Black

Layer - 2: Made from 100% food-grade plastic - White

Available Capacity (Litre): 500 | 750 | 1000 | 1500 | 2000 | 3000 | 5000 | 7500 | 10000

Available Colour: ●

UV STABILIZED · AIR VENTILATION · FOOD GRADE · BUILT STRONGER





AIR VENTILATION — Allows the water to maintain natural oxygen level, hence keeps it fresh and helps avoid deformations

THREADED LID — Ensures the water is always dust-free and hygienic. It also has an inner lid to provide protection from sunlight and keeps the water safe and algae-free.

FOOD GRADE — The water stored is safe for drinking

BUILT STRONGER — Added ribs enhance durability. Less bulging with a full tank thereby reducing the risk of bursting under pressure.

ANTI MICROBIAL — Inner layer manufactured with special Anti-viral copper shield. It prevents bacterial, Fungal, Algae or Virus growth and keeps water fresh.

UV STABILIZED — The UV stabilized layer prevents degradation and helps to fight any environmental stresses, cracking, chalking or loss in the physical properties of the tank.

ASTRAL Opta® 3 LAYER WATER TANK

HASSLE- FREE BLOW MOULDED WATER STORAGE RANGE



The Astral Blow - Moulded water storage tanks are made up of three layers namely, Outer Layer - White or Coloured layer of 100% UV stabilized, Middle Layer – Uniform Carbon distribution layer and Inner White Layer - anti-bacterial /anti-microbial layer, The inner layer prevents bacterial growth and keeps water pure, fresh and germs free.

The Astral Blow Moulded tanks manufactured from 100% Virgin HDPE material with latest technology and without any joints. The HDPE material meets the requirements of various National and International standards for Food Grade Material.

The Astral promise to deliver highest quality products at affordable cost and with service assurance to our valuable customers and contribute humanity through health and hygiene of the society.



Layer 1
- White / Blue / Yellow / Green
- Attractive look
- 100% pure Virgin raw material
- High quality UV Resistance
- Heat resistance – Keep water cool

Layer 2
- Black layer to restrict the UV rays and increase product life
- Improve Durability
- Prevent Algae Formation and keep water safe from germs

Layer 3
- White layer with 100% Virgin – Food Grade material
- Anti-Bacterial / Anti-Microbial layer keep the water safe and pure
- Safe for drinking water

AVAILABLE CAPACITY (LITRE)

500 | 750 | 1000 | 1500 | 2000

AVAILABLE COLOURS

FEATURES

- Virgin Raw Material
- Multilayer Tank
- Light weight yet super strong
- Better Mechanical Properties.
- Modern multi ribbed design, Textured finish outer wall
- Uniform thickness
- Odour Free Plastic layer for Odourless Water
- Better Water Quality for Better Health of Family
- Radius at Edges to avoid stress generation and increase tank life
- Safe for drinking water
- Non-Toxic
- Long Lasting
- Easy Installation
- Plumber Friendly
- Extra Packing for Product safety.

SARITA by ASTRAL

RETHINK WATER STORAGE



Sarita Water Tank offers the two most essential attributes of a water tank - strength and durability. Sarita Water Tanks offer highly durable and robust triple-layered water tanks, with each layer providing its own set of benefits. These tanks also keep stored water clean and disinfected for a long time.

AVAILABLE CAPACITY (LITRE)

500 | 750 | 1000 | 1500 | 2000 | 3000 | 5000

AVAILABLE COLOURS

Layer - 1: Resists the UV rays - White or Coloured (Blue / Yellow / Green)

Highest quality UV resistant layer to protect water from harsh UV rays and reduces overall heat absorption from the sunlight • Improves tank's service life by preventing the breakdown of the polymer chain



Layer - 2: Blocks the sunlight - Black

Designed to provide a barrier for the sunlight to penetrate through the wall of the tank • Prevents microbial or algae growth / activity taking place in water due to sunlight

Layer - 3: Keeps the water clean - Sky Blue

Layer with 100% food-grade quality raw material as it comes directly in contact with water



ASTRAL®
Wire Guard
Conduit Pipes & Fittings

CONDUIT PIPES FOR PROTECTION OF WIRES AND CABLES

Suitable for : Cable Protection

Fire is one of the major hazards to life and property and electrical installations are perhaps one of the primary sources for the generation and propagation of fire. Protection of cables and raceways against fire is, therefore, an important and primary consideration in the design and industry standards. Astral Wire Guard conduit pipes and fittings have good impact strength, low conductivity and chemical resistance. They have high heat deflection temperature and ductile behaviour even at low temperatures. Astral Wire Guard conduit is the lightest in weight compared to other materials and highly reasonable in terms of cost. Astral Wire Guard conduit is available in three different wall thicknesses with the thin wall variety being suitable for embedded use in concrete and heavier grades suitable for direct burial and exposed work. Astral Wire Guard conduit pipes and fittings resist moisture and most corrosive substances. Joints to fittings are made with slip-on solvent welded connections, which stick on rapidly on assembling and attain full strength in about a few hours.

ASTRAL WIRE GUARD
CONDUIT PIPES & FITTINGS

PRODUCT SPECIFICATION

Astral Rigid uPVC Wire Guard conduit pipes are manufactured in accordance with Bureau of Indian Standards specifications IS: 9537 (Part-3) in the range of 20 mm to 63 mm with light, medium and heavy ranges. Thicknesses with the thin-wall variety are only suitable for embedded use in concrete.

QUALITY CONTROL

Astral is equipped with state of art laboratory which specializes in high-quality testing as per the Indian standards for testing of all uPVC electrical conduit & accessories. High-quality performance is attained and ensured throughout the plant in all the processes through experienced and well-qualified staff and skilled workers. Each batch of Astral Wire Guard pipes & fittings is rigorously tested as per the Bureau of Indian Standards relevant scheme of testing and inspection.





IS : 3419 IS : 9537 (PART-3) MCGM APPROVED

Only Those Products Bearing
The Above Marks Are Certified

CORROSION RESISTANT | FIRE RESISTANT | EASY TO INSTALL | COST EFFECTIVE

FEATURES & BENEFITS

- High corrosion resistance
- Fire resistance
- Non-conductor of electricity
- Lightweight
- Easy wiring
- Easy installation
- High mechanical strength
- No maintenance
- Durability

BATCH WISE TESTING BEFORE DISPATCHING

- Checking of dimensions
- Compression test
- Collapse test
- Resistance to burning
- Bending test
- Impact test
- Resistance to heat
- Electrical characteristics
- Moisture absorption test
- Resistance to chemical action test
- Resistance to oil test
- Copper test

AVAILABLE SIZE

OD 19 mm (1.9 cm), 20 mm (2.0 cm), 25 mm 2.5 (cm), 32 mm (3.2 cm), 40 mm (4.0 cm), 50 mm (5.0 cm) and 63 mm (6.3 cm)

COLOUR

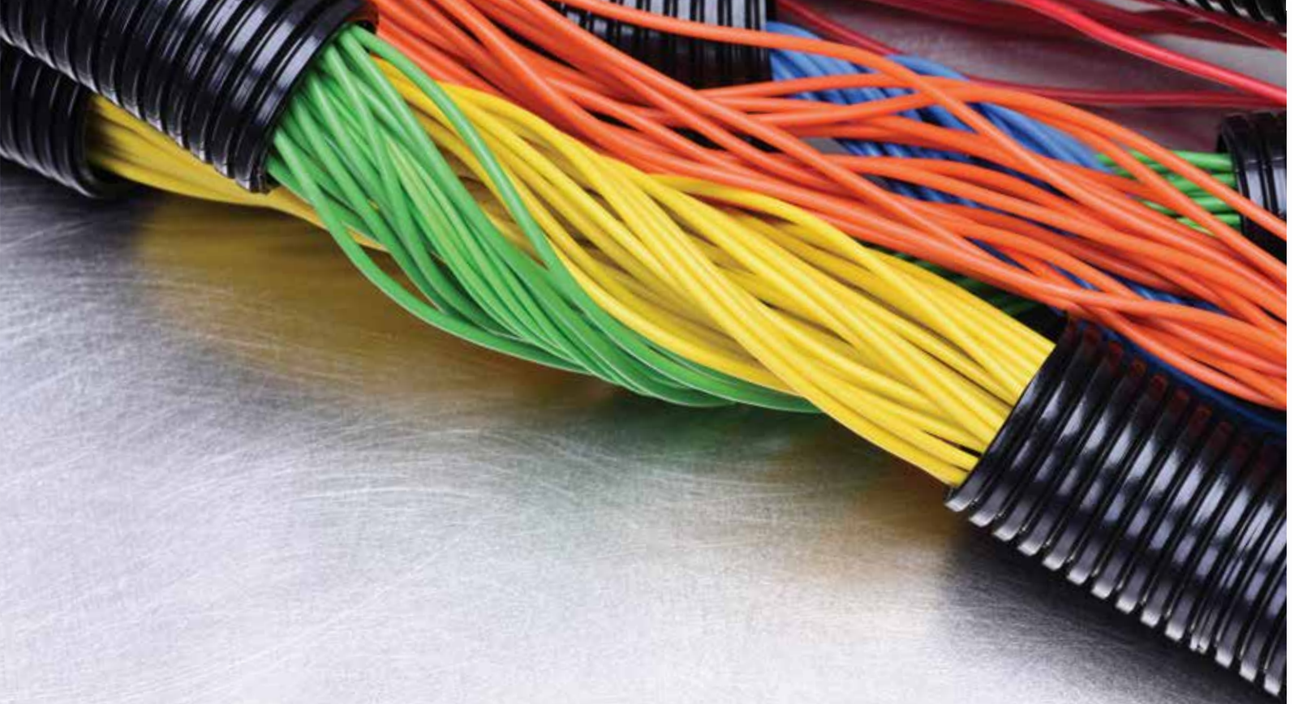
Astral Wire Guard electrical conduits are available in Black & Ivory colours. Other colours are available on request.

MARKING COLOUR CODES

BLUE: Light Mechanical Strength (LMS)
YELLOW: Medium Mechanical Strength (MMS)
WHITE: Heavy Mechanical Strength (HMS)

FIELDS OF APPLICATIONS

- Apartments
- High rise building
- Hotels
- Hospitals
- Shopping malls
- Parking
- Factories



ASTRAL TeleRex®

DWC PIPES FOR SIGNALLING, TELECOMMUNICATION AND POWER CABLE PROTECTION

IS: 16205 (Part-24)

ONLY THOSE PRODUCTS BEARING THE ABOVE MARKS ARE CERTIFIED

Suitable for : Cable Protection

TeleRex Pipes are the marvel of a product for underground cable ducting. Laid in a single layer or with spacers for multilayer installation, TeleRex HDPE Corrugated pipes have a corrugated outer wall, for excellent diametrical stiffness, and an inner fairly smooth wall for facilitating easy cable insertion. It is available in coil form (up to certain diameters) and straight bars. The product is widely popular among the various Indian Government departments such as Indian Railways, PWDs, BSNL, Development Authorities, Airport Authorities, State Electricity Boards, Power Distribution Companies, etc. for underground cable management.

AVAILABLE SIZE

OD: 40 mm (4.0 cm), 50 mm (5.0 cm), 63 mm (6.3 cm), 77 mm (7.7 cm), 90 mm (9.0 cm), 110 mm (11.0 cm), 120 mm (12.0 cm), 160 mm (16.0 cm), 175 mm (17.5 cm), 180 mm (18.0cm), 200 mm (20.0 cm), 250 mm, (25.0cm), 315 mm (31.5 cm)

SPECIFICATION

- IS: 16205 (Part-24) (Earlier IS: 14930 Part-2)
- Type 450N | Type 750N

FIELDS OF APPLICATIONS

Signalling Cable Management for Railways and Airports • Solar Power Cable Protection • Optical Fibre Cable Network • Level Crossings, Platforms • Home Signals • CCTV

ADVANTAGES OF TELEREX

Light weight and easy to handle • Telescopic transportation possible • Excellent Ring Stiffness • Smooth inner wall, hence minimum friction loss • Even when bent, the roundness of pipe is retained • Moderate flexibility takes care of soil settlement, if any • Takes heavy earth loads • Easy to join





ASTRAL MultiRex®

POLYOLEFIN CABLE CHANNEL TO PROTECT SIGNAL & COMMUNICATION CABLES

Suitable for : Cable Protection

MultiRex Polyolefin Cable Channel can be best suitable for laying all types of Signal / Communication / Power cables and can be used in restricted and unrestricted areas. MultiRex Polyolefin Cable Channel is used to protect cables that are subject to changes & extensions against external influences.

By virtue of the material and design incorporated in MultiRex, it has substantial advantages as compared to concrete trenches / channels.

APPLICATIONS

Railways • Smart Cities • Airports • Solar Stations • Power Stations • Cargo Ports & many more...

ADVANTAGES & FEATURES

- Separators can be used to segregate different types of cables
- Available with non-flame propagation properties
- No special tools required for jointing
- Covers can be opened individually for regular inspection
- Predetermined breaking points for cables in & out of the tray
- Pinholes provided for seepage of water to the soil

TECHNICAL SPECIFICATIONS

SPECIFICATION	UNIT/ REQUIREMENTS
Length per pc. / per metre (mm)	1000mm (100.0cm)(appx.)
Width (Int. / Ext.) (mm)	240mm (24.0cm) / 340mm (34.0cm)
Height (Int. / Ext.) (mm)	155mm (15.5cm) / 230mm (23.0cm)
Material	Polyolefin
Min. Weight per metre (Top & Bottom)	8.00 kg
Tolerance in Dimensions	+/-10mm
Fire Behavior	Conforms to Fire Protection Class K1 in accordance with DIN 53438 Part-2
Mechanical Characteristics	Load Bearing Capacity: ≥15 kN
Electrical Characteristics	Dielectric strength: 48 kV as per IEC 60243-1
Thermal Characteristics	Continuous thermal stability from - 10° C to 70° C
Anti Rodent Properties	Available on request
Low Smoke	Available on request
Locking Method	Lock-Key Mechanism Slide Fit & Push Fit



ASTRAL CHEMPRO® | **THE TRANSPORTER OF CORROSIVE CHEMICALS**

Suitable for : Industrial

Astral Chem Pro is a proven CPVC piping system meeting all challenging application requirements of the industrial piping system. It gives trouble-free service to the industry for years together. Astral Chem Pro industrial piping system can be used up to 93°C temperature & pressure based on the pipe sizes. Astral Chem Pro CPVC industrial piping system is suitable for many industrial requirements like metal treating, pulp & paper, food & beverages, Industrial wastewater, Chemical processing, etc. Astral Limited is manufacturing industrial grade Chlorinated Polyvinyl Chloride (CPVC) Pipes of schedule 40 & 80 and fittings of schedule 80 confirm to ASTM Standards ranging from ½" (15 mm) to 12" (300 mm). All Astral Chem Pro CPVC industrial pipes are produced from a compound conforming to ASTM D1784.

WHY ASTRAL CHEM PRO?

- Astral is the pioneer in the CPVC piping industry having more than 20 years of expertise in CPVC piping systems in India
- The Compound meets or exceeds the requirement of cell class 24448 against the standard cell class 23447
- Complete product range from ½" (15 mm) to 12" (300 mm) with a wide range of fittings
- Provides special non-metallic valves like Ball valve, Butterfly valve, Diaphragm valve, Non-return valve. Available both in manual & actuated operational
- Astral imparts complete knowledge of CPVC piping system including training, installation & aftersales service support

APPLICABLE STANDARDS

ASTM D1784 - Standard Specification for Rigid Polyvinyl Chloride (PVC) and Chlorinated Polyvinyl Chloride (CPVC) Compounds.

ASTM F441 - Standard Specification for Chlorinated Polyvinyl Chloride (CPVC) Plastic Pipe, Schedules 40 and 80.

ASTM F437 - Standard Specification for Threaded Chlorinated Polyvinyl Chloride (CPVC) Plastic Pipe Fittings, Schedule 80.

ASTM F439 - Standard Specification for Stocket-Type Chlorinated Polyvinyl Chloride Plastic Pipe Fittings, Schedule 80.

ASTM F402 - Standard Practice for Safe Handing of Solvent Cement and Primer Used for Joining Thermoplastic Pipe and Fittings.

ASTM F493 - Standard Specification for solvent Cements for Chlorinated Polyvinyl Chloride (CPVC) Plastic Pipe and Fittings.

ASTM F656 - Standard Specification for Primers Used in Solvent Cement Joints of Polyvinyl Chloride (PVC) Plastic Pipe and Fittings



AVAILABLE SIZE

PIPES:

SCH 40 & 80: 15 mm (1.5 cm) (½") to 300 mm (30.0 cm) (12") IPS as per ASTM F441

FITTINGS:

SCH 80: 15 mm (1.5 cm) (½") to 300 mm (30.0 cm) (12") IPS as per ASTM F439

VALVES:

½" to 12" True Union Ball Valves, Butterfly Valves, Diaphragm Valves, NRV as per ASTM F1970

FIELDS OF APPLICATIONS

- Metal treating
- Pulp and paper
- Food and beverage industry
- Industrial waste treatment
- Chemical processing
- Power sector
- Sugar industries
- Water treatment plants
- Fertilizer
- Shipping industries
- Mining
- Pharmaceutical
- Cement industries
- Steel industries

ADVANTAGES

- High-temperature resistance
- Easy installation and low installation cost
- External corrosion resistance
- Immunity to galvanic or electrolytic attack
- Freedom from toxicity, odours, tastes
- Low thermal conductivity
- Chemical resistance
- Corrosion-free
- Low friction loss
- Maintenance free





ASTRAL Aquarius+

LEAD-FREE AND NON-TOXIC uPVC INDUSTRIAL PIPING SYSTEM

Suitable for : Industrial

Astral have been relentless in its commitment to quality and service. Through the years, Astral have broadened and enhanced its product line to serve better to customers. Astral was first to introduce CPVC pipes and fittings in the Indian market and now repeating its tradition, Astral is very proud to introduce Lead-Free ASTM PVC Solvent Weld Industrial Piping System under the brand name Aquarius+. Astral Aquarius+ ASTM PVC pipes and fittings are Lead-Free and hence non-toxic, easy to install and are made for lifetime trouble-free service. As the full line leading manufacturer of CPVC pipes and fittings for residential and industrial applications and now with ASTM PVC pressure pipes and fittings, Astral can be your one-stop source for all the plastic piping systems you require for a lifetime plumbing solution.

PVC - POLYVINYL CHLORIDE

PVC is one of the specified thermoplastic for piping system components, including valves, fittings, flanges and many speciality products. PVC has excellent chemical and corrosion resistance to a broad range of fluids. Astral PVC materials conform to ASTM Cell Classification 12454-B of ASTM D1784 (formally designated as Type I, Grade I). The maximum recommended service temperature of PVC products is 45°C (113°F).

WHAT MAKES PVC IMPORTANT?

PVC makes a major contribution to the quality, safety and cost-effectiveness of construction materials, as well as helping to reduce the environmental impact of completed projects. PVC is the most widely used polymer in different Industrial applications and over 50 percent of Western Europe's annual PVC production is used in this sector. PVC has a versatility that helps to meet modern and future design needs.

FEATURES & BENEFITS

- Astral Aquarius+ uPVC pipes being Lead-Free are non-toxic and hence favoured for use in applications such as potable water pipes
- Astral Aquarius+ uPVC Industrial Piping System utilizes NSF (National Sanitation Foundation) approved one-step solvent cement, specifically formulated for the use
- Joining is accomplished quickly and efficiently utilizing inexpensive tools thereby greatly reducing labour and installation costs
- Astral Aquarius+ uPVC solvent joint Industrial Piping System makes its pressure bearing capacity twice than that of the threaded pipe
- Astral Aquarius+ uPVC pipes & fittings exhibit the well-known physical characteristics and other benefits of conventional PVC piping such as good chemical and corrosion resistance, low thermal conductivity, high strength-to-weight ratio, good impact resistance and ease of installation



AVAILABLE SIZE

PIPES:

SCH 40 & 80: 15 mm (1.5 cm) (½") to 300 mm (30.0 cm) (12") IPS as per ASTM D1785

FITTINGS:

SCH 80: 15 mm (1.5 cm) (½") to 300 mm (30.0 cm) (12") IPS as per ASTM D2467

VALVES:

½" to 12" True Union Ball Valves, Butterfly Valves, Diaphragm Valves, NRV as per ASTM F1970

STANDARDS & SPECIFICATIONS

ASTM D 1784 - Rigid Poly Vinyl Chloride (PVC) Compounds
ASTM D 1785 - Poly Vinyl Chloride (PVC) Plastic Pipes, SCH 40 & SCH 80
ASTM D 2466 - Socket type Poly Vinyl Chloride (PVC) Plastic Pipe Fittings, SCH 40
ASTM D 2467 - Socket type Poly Vinyl Chloride (PVC) Plastic Pipe Fittings, SCH 80
ASTM D 2564 - Solvent Cements for Plastic Pipes & Fittings
ASTM F 1498 - Taper Pipe threads 60° for Thermoplastics Pipe & Fittings
ASTM D 2774 - Underground Installation of Thermoplastic Pipes
ISO 7/1 - Pipe threads where pressure joints are made on threads - Part 1: Designation, Dimension & Tolerances





ASTRAL GeoRex®

SUB-SURFACE DRAINAGE

IS:9271

Only those products bearing the above marks are certified

Suitable for : Agriculture Drainage

Astral GeoRex, single wall corrugated uPVC pipes is a reliable product when it comes to sub-surface drainage. Astral GeoRex comes with perforation which enables the ease of sub-surface drainage, as well as a corrugated profile that gives the required flexibility and stiffness to withstand various underground loads. Astral GeoRex offers a complete sub-surface drainage solution with a wide range of pipes, moulded fittings and geotextile wrap.

GeoRex pipes are manufactured as per IS: 9271 specifications.

FIELDS OF APPLICATIONS

Farmland • Construction sites • Sports fields and stadiums • Oil depots • Airports • Golf course • Highways • Podium gardens • Landscapes • Tunnels

FEATURES

Single Wall Corrugated • PVC • Available In Long Lengths in Coils • Unique Braiding Method • Injection Moulded Fittings

AVAILABLE SIZES

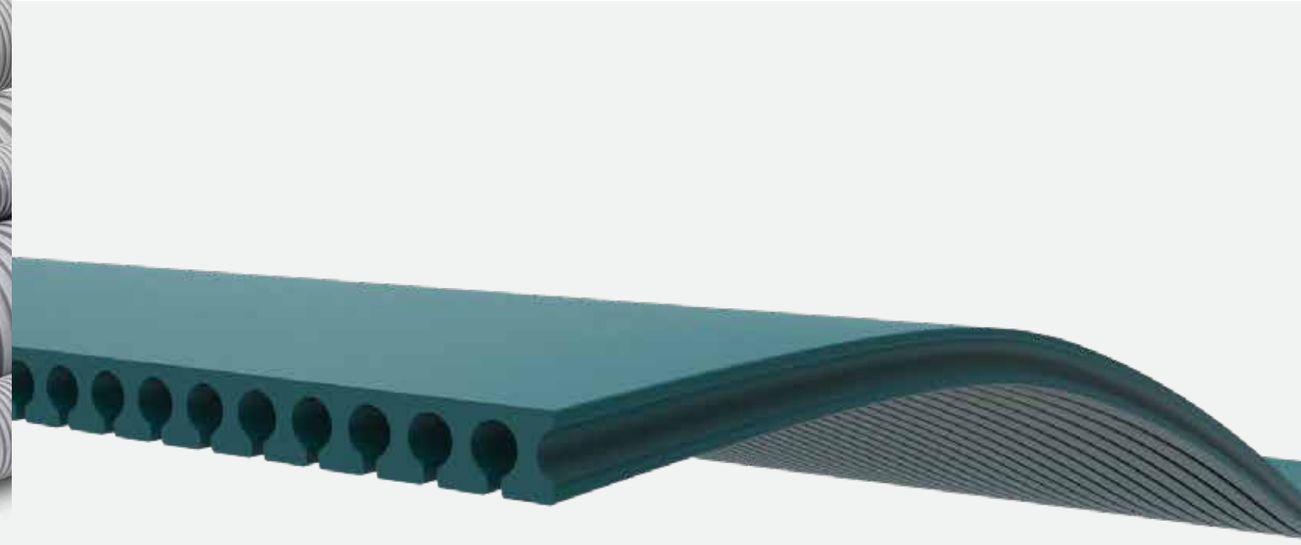
OD 65 mm (6.5 cm) to 250 mm (25.0 cm)

ADVANTAGES

The unique corrugated profile gives excellent flexibility to the pipe without affecting the stiffness • Pipes can sustain heavy earth loads • Allows use of Non-Woven Geotextile/ filter material • Uniform flow throughout the pipe length • Available in longer lengths, thereby reducing the number of joints • Available in coil form, thereby facilitating automated laying • Well-designed perforations giving adequate water inlet area • Unique braiding method to avoid any issues due to chocking of pipes and improper site installation practices • Injection moulded fittings for the better quality of joints and excellent load-bearing strength of the system • High precision installation through advanced laser-guided trenching machines

TECHNICAL SPECIFICATIONS

O.D.	Water Inlet Areas
65 mm	18-80 Sq. cm/metre
80 mm	18-80 Sq. cm/metre
100 mm	21-80 Sq. cm/metre
160 mm	24-80 Sq. cm/metre
200 mm	27-80 Sq. cm/metre
250 mm	30-80 Sq. cm/metre



ASTRAL PowerDrain®

GROOVED PVC BELT FOR SUB- SURFACE DRAINAGE

Suitable for : Agriculture Drainage

PowerDrain is a PVC material-based belt which has a unique design which allows it to operate continuously for a long period. The profile of the belt has a unique omega shaped (Ω) grooves which are in contact with the ground surface directly. Due to this unique design, Capillary action and Siphonage action, this belt achieves better drainage for longer period of time.

PowerDrain is a revolutionary product which is a full proof and long-lasting solution for many sectors like Sub-surface drainage, foundation drains, saline soil reclamation and tunnel-percolation protection etc. it is a unique product which utilizes two most fundamental processes in nature, i.e. “Capillarity” and “Siphonage”.

Capillary Action is a tendency of a liquid to rise in a narrow tube due to the interaction between the adhesive and cohesive forces of the liquid and the surface.

Siphonage is the action where, under the influence of gravity, the liquid flows from its highest point to a lower point through a channel.

Due to the application of these two fundamental processes, PowerDrain achieves a higher degree of draining capability and effectiveness in tackling problems related to water accumulation.

FIELDS OF APPLICATIONS

Foundation Drainage • Landscape Drainage • Sports Drainage • Agricultural Drainage • Tunnel Drainage • Road Drainage

FEATURES & BENEFITS

Does not choke even after long working cycles • Slope requirement is Nominal (1% Maximum) • Root growth is altogether avoided • Draining continues for a longer period of time • Draining capacity is not limited by soil type Can work even in clay • No need of special gravel arrangement • Installation process extremely simple and user friendly

ADVANTAGES

Virtually Crush Proof • Drains Water Longer, Faster & Cleaner • Non-Clogging, Long Working Life • Flexible Will fit any construction location • Easy Assembly & Installation • Easy Handling lower storage/transportation costs • Can Be Fitted to Existing Drainage Systems • Recycling / Natural Water Filtration

PRODUCT SPECIFICATION

Standard Length: 50 mm • Standard Colour: Green
Width: 100 mm & 200 mm



ASTRAL Plus+StiRex®

ENHANCED VERSION OF POST TENSIONING CORRUGATED PP DUCTS

Suitable for : Urban Infrastructure

Astral is introducing plastic ducts as a better and economical substitute of conventional metallic ducts. Our Plus+StiRex brand is in the field of PT ducts with an experience of supplying more than 5000 Kms. To various infrastructural projects. This experience and expertise allow to us respond quickly to the market. “Plus-Stirex” Corrugated sheathing ducts and Post- Tensioning tendons are made of PP material and are manufactured using state of the art German technology.

AVAILABLE SIZE & TYPES

Round Duct: ID - 59 mm to 140 mm

Thickness: 2, 2.5, 3, 3.5, 4 & 5 mm

Length: 6, 7.2 & 11.8 mtr straight duct

Flat Duct: Size (L x W) - 60 x 22, 71 x 21, 76 x 24, 90 x 22, 90 x 24 mm

Thickness: 2 mm

Length: 6, 7.2 & 11.8 mtr straight duct and 50 & 150 m coil

Colour: Black and White

FITTINGS

Fittings like Heat Shrink Sleeves, Press Fit Couplers, Sealing Rings, Air Vent Couplers & Other Accessories like Port Adaptor, Port, Valve, Vent Pipe

WIDE APPLICATIONS

Flyovers • Elevated Structures • Offshore Platforms • Underpasses • Metro Rails • Pipelines • Bridges • Nuclear Containment Domes • Via ducts • PT slab

FEATURES

Corrosion protection • Helps Electrical Monitoring of Tendons • Good Weathering resistance Good Impact and compression strength • Enhance fatigue life of tendons • Jointing is easy and user friendly • Chemically inert material • Environment friendly • High stiffness and flexibility • Low friction co-efficient

STANDARDS & SPECIFICATIONS

- FIB (International Federation for Structural Concrete) Bulletin 7 & 75
- IRC (Indian Roads Congress) 112:2020
- FDOT (Florida Department of Transportation)



ASTRAL Pre-StiRex®

CORRUGATED DUCTS FOR PRE-STRESSING & POST-TENSIONING TENDONS

Suitable for : Urban Infrastructure

Astral is introducing plastic ducts as a better and economical substitute of conventional metallic ducts. “Pre-Stirex” Corrugated sheathing ducts for Pre-stressing and Post- Tensioning tendons are made of HDPE material.

AVAILABLE SIZE & TYPES

Normal I.D. in mm	***Thickness = 2 mm &** O.D / I.D. in mm
51	63.0 / 51.0
75	90.0 / 75.0
84	97.0 / 84.0
95	110.0 / 95.0
107	124.0 / 107.0

Standard Length: Length as per requirement

Standard Colour: Black

Material: HDPE

WIDE APPLICATIONS

Flyovers • Elevated Structures • Offshore Platforms • Underpasses • Metro Rails • Pipelines • Bridges • Nuclear Containment Domes • Viaducts

FEATURES

- Corrosion protection
- Helps Electrical Monitoring of Tendons
- Good Weathering resistance Good Impact and compression strength
- Enhance fatigue life of tendons.
- Jointing is easy and user friendly
- Chemically inert material
- Environment friendly
- High stiffness and flexibility
- Even when bent, Cross section of the duct retails its circularity.
- Low friction co-efficient

STANDARDS & SPECIFICATIONS

Fib Bulletin-7, Fib Bulletin 75 and various Indian Standards viz. IRC 112 IRS concrete Bridge code, MORTH (Roads and Bridge work-Section 1800} and NPCIL, etc.



ASTRAL Power Flex®

HEAVY DUTY SUCTION HOSE PIPES FOR WATER DELIVERY

IS: 15265

Only Those Products Bearing The Above Marks Are Certified

Suitable for : Agriculture

Astral suction hose pipe is known for its flexibility and long life. It has wide applications like wise delivery of water for irrigation purpose with electric mono block, oil engines, delivery of water from submersible pumps and water tankers etc. It is lightweight and known for retained flexibility for years.

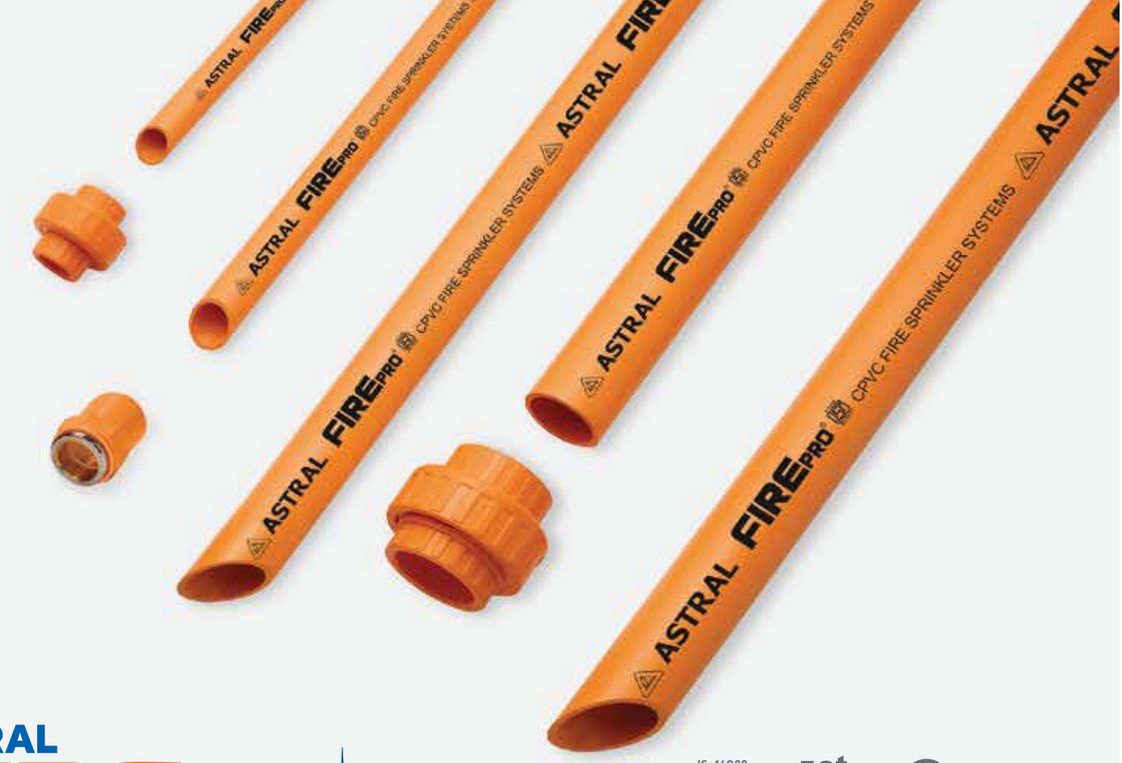
WIDE APPLICATIONS

- Farming and Irrigation • Delivery of water through various pumps
- In various tankers for water discharge

AVAILABLE SIZE & TYPES

Size		Standard Coil Length (m)	Standard Packing (no. of coils)	HEAVY DUTY					MEDIUM DUTY				
				Diameter (mm)		Working Pressure at 27°C (Kg/cm²)	Bursting Pressure at 27°C (Kg/cm²)	Bending Radius (mm)	Diameter (mm)		Working Pressure at 27°C (Kg/cm²)	Bursting Pressure at 27°C (Kg/cm²)	Bending Radius (mm)
mm	inch			ID	OD				ID	OD			
20	¾	30	5	20 ± 0.75	24 ± 0.75	8	25	45	20 ± 0.75	23 ± 0.75	7	23	50
25	1	30	4	25 ± 1.25	30 ± 0.75	7	24	65	25 ± 0.75	29 ± 0.75	7	23	75
32	1¼	30	3	32 ± 1.25	36 ± 0.75	7	20	80	32 ± 1.25	36 ± 0.75	5	19	105
38	1½	30	3	38 ± 1.50	43 ± 1.00	5	18	90	38 ± 1.25	42 ± 1.00	5	16	125
50	2	30	2	50 ± 1.50	55 ± 1.50	5	18	120	50 ± 1.50	55 ± 1.50	5	16	170
63	2½	30	1	63 ± 1.50	69 ± 1.50	5	17	175	63 ± 1.50	68 ± 1.50	5	16	225
75	3	30	1	75 ± 1.50	84 ± 1.50	4.5	17	200	75 ± 1.50	82 ± 1.50	4	15	270
90	3½	30	1	90 ± 1.50	98 ± 1.50	4.5	15	280	90 ± 1.50	97 ± 1.50	3	13	365
100	4	30	1	100 ± 2.00	110 ± 2.00	4	14	280	100 ± 2.00	107 ± 2.00	3	10	365
125	5	15	1	125 ± 2.00	136 ± 2.00	2.5	11	425					
150	6	15/18	1	150 ± 2.00	168 ± 2.00	2.5	10	475					

Note :-Standard colour of pipe is Green, Grey and Dark Grey



ASTRAL FIREPRO®

PIPES THAT FIGHT FIRE

IS : 16088

CM/L - 2865777

1st in India

c UL us LISTED CPVC FIRE SPRINKLER PIPE EX15300

Only Those Products Bearing The Above Marks Are Certified

Suitable for : Fire Sprinkler System

Astral Fire Pro pipes and fittings are designed specifically for fire sprinkler systems. They are made from a specialty thermoplastic known chemically as Chlorinated Polyvinyl Chloride (CPVC). Astral Fire Pro pipes and fittings provide unique advantages in sprinkler installations including superior hydraulics, ease of joining, increased hanger spacing in comparison to other thermoplastics and ease of assembly. Astral Fire Pro is the new industry standard in automatic fire sprinkler piping systems. Astral Fire Pro CPVC pipes and fittings are fully approved for use in all light and ordinary hazardous rooms or otherwise light hazardous applications as per NFPA 13, in both new and retrofit construction, such as:

- High-rise buildings (including apartments and hotels)
- Schools and Institutions
- One and two-family dwellings

EXCELLENT FIRE RETARDANT PROPERTIES

- Flammability • Heat of combustion
- Flame spread / Smoke generation

FEATURES & BENEFITS

- Ignition resistance
- Burning resistance
- Low friction loss
- Temperature / Pressure rating

SYSTEM BENEFITS

- No pre-cutting and expensive fabrication required
- Easily connected to other sprinkler piping systems
- Flexibility in the piping for greater ease of installation
- Resistant to rust, scale and foreign contaminant build-up
- Inexpensive tools required for installation
- Easily repairing or modification on site
- Designed to a 50 years life expectancy

AVAILABLE SIZE

PIPES:

20 mm (¾") to 80 mm (3") SDR 13.5 IPS as per ASTM F442 & IS:16088

FITTINGS:

20 mm (¾") to 80 mm (3") schedule 80 IPS as per ASTM F439



ASTRAL HDPE PRO®

HIGH DENSITY POLY ETHYLENE PIPES

IS:4984

Only those products bearing the above marks are certified.

Suitable for : Agriculture Drainage Urban Infrastructure

Astral HDPE Pro Plain HDPE (High Density Poly Ethylene) pipes are widely used in water supply and irrigation applications. Manufactured as per IS 4984 and ISO 4427, Astral HDPE Pro is high quality product encompassing the use of PE 63, PE 80 and PE 100. Astral is manufacturing complete range from virgin raw material with state-of-the-art manufacturing facility, this piping system gets through numerous quality checks in our lab on raw material as well as on pipes before being deployed in the field. Astral HDPE Pro pipes are being used for Underground, Above Ground, Under Water and Floating pipe applications and also working temperature from -40°c to +45°c.

FEATURES

Manufactured from High grade virgin food grade raw material (PE 63, PE 80 and PE 100), Non-toxic and suitable for potable water supply • Chemically inert as well as excellent corrosion and abrasion resistance • Very low electrical and thermal conductivity • Excellent performance in aggressive climatic conditions having superior uv and low temperature resistance with antimicrobial properties • Easy to handle, telescopic transportation and fast and cheaper installation • Smooth inner walls enhancing high flow with less friction loss and superior water hammer resistance • High Impact Strength, high toughness and excellent crush resistance • High Durability and Excellent Service Life of more than 50 years • Due to flexibility, ideal for earthquake prone areas • Leak proof Joint and suitable with different HDPE joining methods • Light Weight

FIELDS OF APPLICATIONS

Micro and sprinkler irrigation system • Lift and water supply irrigation system • Sewerage & Drainage pumping and effluent disposal • Submersible pump piping for borewells• Infrastructure projects • Industrial Effluents • Use with special installation techniques like horizontal directional drilling, pipe bursting, micro tunnelling method of trenchless technology

AVAILABLE SIZES, TYPES & PRESSURE CLASS

- Pipe OD – 20 mm to 500 mm
- Grade of material – PE 63, PE 80 & PE 100
- SDR 6 to SDR 41
- PN 2 to PN 8 (For PE 63), PN 2.5 to PN 20 (For PE 80) and PN 3 to PN 20 (For PE 100)
- Black Colour with 3 Blue Stripes



ASTRAL DROPLET™

DRIP IRRIGATION PIPE SYSTEM

IS:13488

Only those products bearing the above marks are certified

Suitable for : Agriculture

Astral Droplet, drip irrigation pipes are manufactured as per IS:13488 as well as company standard and available in different sizes and types. These pipes offer multiple advantages like light weight, easy and fast installation, accurate flow rates, long life and economy Emitting pipes & their fittings are having resistance to fertilizers & chemicals commonly employed in irrigation, & shall be suitable for use at water temperature up to 45°C-50°C Emitting pipes & their fittings are pipes are manufactured under highest quality standards which ensure reliability of the product.

FIELDS OF APPLICATIONS

•Used for variety of applications like agriculture and irrigation. Astral Droplet is widely used & suitable in all kind of vegetables, cotton, sugarcane, turmeric, banana and other fruits

•Emitting pipes & their fittings are UV stabilized, hence suitable for outdoor applications

•Emitting pipes & their fittings do not support the growth of algae & bacteria

FEATURES

Manufactured from Quality Raw Material • Easy Handling, Transportation & Installation • Chemical Resistance • Longevity

• Ease of Use • Better Flow for Optimum Yields • High Strength and Durability • UV Stabilized

PRODUCT SPECIFICATIONS

ISI		As per company standard		
• 12-4-2-30 to 50-B	Unregulated	• 16-4-30 to 60	Unregulated	0.2mm Thickness
• 16-4-2-30 to 50-B	Unregulated	• 16-4-30 to 60	Unregulated	0.3mm Thickness

For instance if we consider 16-4-2-30 to 50-B as a reference then,
16 - Pipe Size (mm), 4 - Emission Rate (LPH), 2 - Class (as per IS:13488),
30 to 50 - Spacing (cm) & B - Uniformity Category

Dimensions of Polyethylene Emitting Pipes as per IS

Nominal Diameter	Inside Diameter	Wall Thickness Class 2 (0.125 MPa)
12	10.50	0.6 to 0.7
16	14.20	0.7 to 0.9

All Dimensions are in mm

Note: The wall thickness of pipes are based on safe working stress of 2.5 MPa at 20°C. Occasional rise in temperature has no deleterious effect on the life & working pressure of the pipe.



ASTRAL Clamps & Hangers®

FOR PROVIDING PROPER SUPPORT TO PIPES AND CABLES

Suitable for : Plumbing Drainage Industrial Fire Protection Urban Infra. Cable Protection

Astral Clamps & Hangers have universal applications where support to pipes and cables are required. These clamps and hangers can be used in building and Infrastructure segments starting from residential, commercial and industrial applications including plumbing, electrical and firefighting.

These clamps are available in both – with EPDM rubber and without EPDM rubber. These clamps and hangers are zinc-coated and stainless steel finished.

FIELDS OF APPLICATIONS

RESIDENTIAL: • Apartments • High Rise Buildings • Villas & Bungalows

INDUSTRIAL: • Petroleum • Fire Fighting • Tele-communication • Plastics & Rubber • Solar Plants & Many More

COMMERCIAL: • Hotels •Shopping Malls • HVAC • Hospitals • Parking

AVAILABLE SIZE

Astral Clamp s & Hangers are available in sizes from 15 mm (1.5 cm) (½") to 200 mm (20.0 cm) (8")

ASTRAL CLAMPS, HANGERS AND ELECTRICAL FLUSH BOXES

ACCESSORIES

A comprehensive range of products for pipe support, hangers and Concealed wiring boxes.

- Split clamps (Regular,Heavy Duty & Sound Dampning types)
- Slotted base & slotted strips
- Clevis hanger
- Electric junction flush boxes
- Heavy-duty saddles
- Light duty saddles
- Slotted 'C' channels & base clamps
- Sprinkler hangers
- U-Bolts
- Safety clip
- Base clamps
- Threaded rod, jointer nuts and washers

FEATURES & BENEFITS

- Quick and easy installation
- Higher strength
- Versatile and elegant
- EPDM rubber lining
- Corrosion resistant
- Greater safety
- Maintenance free
- Electro-galvanized zinc coating





ASTRAL DRAIN TOP™

FRP MANHOLE COVER

Suitable for : Drainage Urban Infrastructure

Astral Drain Top is revolutionary product with better performance over conventional products. Astral Drain Top are Solid Top Manhole Covers which are manufactured from Thermoset plastic material like FRP/GRP/Composite and use for drainage and utility services.

APPLICATIONS Bicycle Ways, Pedestrian Ways, Car Parking Areas, Kerbside Parking Areas, Roadways, Sea Ports, Airports etc.

Applicable Testing Standards BS EN 124, IS 1726, AASHTO

AVAILABLE SHAPES & SIZES

Square (300, 450, 600 & 900 mm) Rectangular (900 x 600 mm)

LOAD BEARING CAPACITY

2.5, 5, 12.5(B125), 25(C250), 40(D400) & 60(E600) ton

COLOUR

Granite finish (available in other colours as per requirement)

FEATURES

- Double seal system
- Key locking or bolt locking arrangement
- Lifting keyholes made with high strength plastic alloy/SS, socket type to avoid wear & tear in lifting area
- Closed bottom keyholes
- Zero permanent set
- Self pigmented
- Non brittle

KEY PROPERTIES

- Resistant to sunlight, water, chemical water and sewerage water
- UV Resistant
- High Impact Resistant
- Higher strength to weight ratio
- Protects from theft
- Suitable for extreme hot and cold conditions
- Corrosion Resistant
- High abrasion resistance
- Nonconductive (Thermally & Electrically)
- Less handling cost due to light weight
- Long-life cycle



ASTRAL INSUPRO | XLPE INSULATION FOR PIPING

Suitable for : Insulation

Astral XLPE Insu Pro insulation tubes are specially designed for plastic & metal piping system for applications in building construction and various other industries for plumbing, HVAC, chilling thermal insulation, etc.

Astral XLPE Insu Pro is produced using advanced manufacturing machinery & equipment setup which is capable of manufacturing the product in line with the international norms. The highest quality raw materials, standard manufacturing practices and quality management systems ensure Astral XLPE to be the best quality end-product.

FEATURES & BENEFITS

- Negligible water / moisture absorption (>90 % closed-cell)
- Wide operating temperature range: -40°C to +115°C
- Excellent thermal insulation
- Resistance to fungi & bacteria
- Chemically unreactive
- Stable K value
- Maintenance free
- Fibre free & dust-free
- Flexible & easy to install
- Class O for fire propagation

TECHNICAL INFORMATION

Recommended for Copper, CPVC, uPVC, MS & GI pipes

PARAMETER	ASTRAL XLPE SPECIFICATION		
Material (ASTM C1427)	Chemically Cross Linked Closed Cell Polyethylene Foam Insuation		
Temperature Range	(-)40° C to +115°C		
Nominal Density	30± kg/m^3		
Thermal Conductivity	Mean Temperature (°C)	W/m °K	Kcal/hr m (°C)
	0	0.0318	0.0273
	23	0.0329	0.0283
	26	0,0382	0.0328



APPLICATION AREAS

• Plastic & metal piping system • Building construction and various other industries • For plumbing, HVAC, chilling thermal insulation

VARIOUS TYPES

- Class - 1 : Plain and with Alupet
- Class - O : Plain and with Alupet

AVAILABLE SIZE

From 15 mm (1.5 cm) to 100 mm (10.0 cm) pipes

(Other sizes are also available upon request)

INSULATION THICKNESS

6 mm (0.6 cm), 9 mm (0.9 cm) & 13 mm (1.3 cm)

(Other sizes are also available upon request)





WELD·ON®

SOLVENT CEMENT FOR LEAKAGE FREE PLUMBING



ASTRAL PIPE FIX™

AN EXTENSIVE RANGE OF SOLVENT CEMENTS

Suitable for : Plumbing Drainage Industrial

Our Low VOC Solvent Cements are used by Plumbers and Building contractors for leak-free joints of CPVC / PVC / SWR Pipes and fittings. Our quality products are recognised as the best productts for fast reliable and cost-effective alternative to the present solvent cement available in the market.

NSF pw

Only those products bearing the NSF mark are certified

BENEFITS

- High-quality performance with excellent installation properties.
- User-friendly: Reduced fumes and odor for the comfort and well-being of plumbers /installers
- NSF listed, meets ASTM standards*

* Check individual products for NSF and ASTM standards.

** Astral uPVC solvent cement and rubber lubricants are not under the license of IPS Corporation.



Suitable for : Plumbing Drainage Agriculture

PIPE FIX CPVC 307 is yellow colored, medium-bodied CPVC solvent cement used for joining CPVC pipes & fittings. It is recommended for potable water piping as well as pressurized pipes. It can withstand temperatures up to 82°C and can be used without a Primer.

PIPE FIX uPVC 206 is fast setting solvent cement for joining uPVC pipes & fittings for low pressure and drainage systems. It can be used for uPVC pipes transporting potable water as well as for materials like PVC, Acrylic & ABS.

PIPE FIX PVC 101 is regular-bodied PVC Solvent Cement for PVC pipes & fittings up to 6" diameter. It is suitable for conduit & low-pressure and drainage systems.

AVAILABLE SIZE & TYPES

50 ml | 118 ml | 237 ml | 473 ml | 946 ml

FEATURES

- Withstands High-pressure(CPVC 307 & uPVC 206 Only)
- Low VOC
- Leak-proof
- Better Coverage





SPECIALTY FITTINGS

BACKFLOW PREVENTER VALVE

PVC VALVE TO RESTRAIN BACKWATER

About Astral Back Flow Preventer Valve

Following the custom of spearheading numerous inventive products, the Astral Pipes has come up with one more value-added product 'Backflow Preventer Valve'. The Backflow preventer valve is typically used to shield private underground seepage frameworks and for flooding protection which is mainly caused by the public sewer system.

AVAILABLE SIZES

110mm, 160mm,200mm

STANDARDS & SPECIFICATIONS

EN 13564

BASIN TRAP

About Astral Basin Trap

Established in 1996 with the aim to manufacture best-in-globe plastic piping systems, Astral Pipes fulfils emerging piping needs of millions of houses and adds extra mileage to India's developing real estate fraternity with the hallmark of unbeaten quality and innovative piping solutions. Keeping itself ahead of the technology curve, Astral has always been a front runner in the piping category by bringing innovation and getting rid of old, primitive and ineffective plumbing methods. The Astral Pipes has come up with one more value-added product "Basin Trap". The main objective of the trap is to retain water to prevent toxic gases containing foul smell, viruses and bacteria from entering the home via drain.

AVAILABLE SIZES

4.0 cm

AIR ADMITTANCE VALVE

NEGATIVE PRESSURE ELIMINATOR FOR UNRESTRICTED SEWAGE SYSTEM

About Astral Air Admittance Valve

Astral Air Admittance Valves respond to the negative air pressure created in a sewage system when sanitary facilities are used. Sewage flow can produce negative pressure and then water is drawn out of the siphons. Air admittance valves help to provide air supply to the sewage system and thus compensate for negative air pressure. Astral Air Admittance Valves are manufactured with latest European standards and their working temperature range is from -20°c to +60°c.

AVAILABLE SIZES

Mini – 32 mm to 63 mm, Maxi – 75 mm to 110 mm

STANDARDS & SPECIFICATIONS

EN:12380 and EN: ISO 3126

GULLY TRAP

Following the custom of spearheading numerous inventive products, the Astral Pipes has come up with one more value-added product "Gully Trap". A gully trap is a significant part of the plumbing system. It is an extension of the drainage pipe in the form of a basin that allows water to safely pass through the sewage system without letting dangerous gases escape. It retains a body of water, which works as a water seal.

AVAILABLE SIZES

160 x 110 mm, 200 x 160 mm, 200 x 160 x 160 mm

ASTRAL

INTRODUCING ASTRAL BATHWARE

NOT JUST BATHWARE BUT WORKS OF ART

FOR DEALERSHIP ENQUIRY

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