

THE ALL NEW
ADVANCEDASTRAL
CPVC PROTM

ADVANCED HOT AND COLD WATER PLUMBING SYSTEM

**INDIA MOVES FORWARD
WITH ASTRAL CPVC PRO-
THE FIRST PRO-INDIA PIPE**

Astral Poly Technik Limited is proud to announce the launch of the all new advanced ASTRAL CPVC PRO. The first of its kind pro-India pipe, that is soon to become a household name in the world of plumbing and drainage systems. A class apart in the category, ASTRAL CPVC PRO is more than just a hot and cold plumbing system. It is an initiative, to deliver a world class plumbing solution.

An Insight into
Astral CPVC PRO

ASTRAL CPVC PRO pipes and fittings are made from the specialty 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 Astral's R & D and backed by their expertise of manufacturing CPVC piping system for the last 17 years. It is a unique combination of highest Impact resistance without any loss in pressure bearing capacity / Tensile strength or Vicat softening temperature. This ensures best trouble free service and also stood notch above the initial installation issues of cracking / damages due to handling, storage and installation. The qualities of the company are reflected in Astral CPVC Pro by standing for what it serves, that is, delivering unbeaten quality to the plumbing industry.

AVAILABLE IN SIZES TO SUIT YOUR NEEDS

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 is also complies to ASTM standard. All Astral CPVC SDR 11 and SDR 13.5 pipes are made from identical CPVC compound material having same physical properties. The CPVC fittings are manufactured from compound material which meets all the requirement as per ASTM standard.

Apart from having the same physical properties, SDR 11 and SDR 13.5 which are having different wall thickness and therefore, at any given temperature, they have different pressure ratings. The table shows us the grade of pipe and the pressure dealing capacity at different temperatures.

PIPE TEMPERATURE (°C) PRESSURE RATING

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 300 mm (12") in SCH 40 and SCH 80 which meets the requirements of ASTM F 441. The pressure ratings vary 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.



WHY ASTRAL CPVC-PRO

INTRODUCED CPVC FOR THE FIRST TIME IN INDIA

There was a time when CPVC pipes were not accepted by the industry. This was mainly because GI pipes were 30% cheaper than CPVC pipes. So strength of steel and cost were major factors why GI pipes were norms. But ASTRAL introduced CPVC pipes in India for the first time embarking upon anti-corrosion and hot water compatibility. Since then, ASTRAL CPVC PRO has been a flagship CPVC product leading the way in the market.

STRINGENT QUALITY STANDARDS

First Indian company to obtain certification from NSF for its CPVC plumbing compound as well as product.

STATE OF THE ART MANUFACTURING

ASTRAL is equipped with state of art manufacturing facilities at Santej and Hosur plants. High speed and accurate extruders and injection molding machines including innovative manufacturing techniques being used to manufacture the ultra modern, errorless ASTRAL CPVC PRO pipes and fittings.

WIDEST PRODUCT RANGE

ASTRAL is the only company that provides the pipes with sizes ranging from 1/2" to 12" diameter. Hence you can meet any requirement with this widest range of CPVC pipes.

SKILL DEVELOPMENT INITIATIVES FOR PLUMBERS

ASTRAL also takes care of its customers by training plumbers and plumbing contractors throughout the year by updating them about modern plumbing techniques and to do plumbing work more effectively and professionally.

STANDARDS & SPECIFICATIONS :

IS 15778

Standard Specification for CPVC pipes for Hot and Cold Water Supplies -Specification

ASTM D2846

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

ASTM F441

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

ASTM F439 :

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

ASTM D1784

Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.

ASTM F493

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

ASTM F438

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

ASTM D2774 :

Underground installation of Thermoplastic pipes.

THE RAW MATERIAL

Astral CPVC Pro pipes and fittings are manufactured with specially designed CPVC Compound formulated by Astral itself. The compound is mixture of CPVC Resin from Sekisui Specialty Chemicals, Japan (the world renowned CPVC resin manufacturer) and other ingredients like Impact Modifiers, Lubricants, UV stabilizers etc.

The compound for pipes and fittings are carefully designed in our R & D facility and checked for different properties like Dynamic Thermal Stability, Fusion, Torque and all other rheological properties. Thus designed CPVC compound can give highest processibility as well as best Physical and Mechanical properties.

The compound meets or exceed all requirement for cell classification for IS 15778 and ASTM D2846.

The material is also certified by NSF for its safe use with potable water and thus completely safe for drinking water.

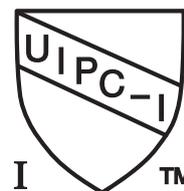
HIGHEST NUMBER OF CERTIFICATIONS

NSF, UIPC-I and ISI Certifications :

ASTRAL the only pipe manufacturing company in India now having most prestigious quality certifications from National Sanitation Foundation (NSF), UIPC-I and Bureau of Indian Standards (BIS).



Certified to
NSF/ANSI 61



FIELDS OF APPLICATIONS

ASTRAL CPVC PRO Pipes can be used in 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 can withstand very high temperature compared to any other thermoplastic plumbing systems. Many solar and electric water heaters have CPVC piping system for heat efficiency and lower installation cost.

Lower bacterial growth:

Bacteria build up with CPVC is far lower than with alternative piping materials - Copper, Steel and other thermoplastics.

No Scale, pit or leach formation:

Even after years of use in the most aggressive conditions, ASTRAL CPVC PRO Piping System won't corrode, standing up to low pH water, coastal salt air exposures and corrosive soils. ASTRAL CPVC PRO Piping System stays as solid and reliable as the day it was installed. It maintains full water carrying capacity because its scale resistance means no build up to cause water pressure loss.

Low thermal expansion:

ASTRAL CPVC PRO Piping System has a lower coefficient of thermal expansion than alternative plastics, reducing the amount that the pipe expands when hot water is running, again reducing unsightly 'looping' of the pipe.

Easy, cold welding process:

CPVC 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.

Fire safety:

CPVC has a limiting Oxygen Index (LOI) of 60. Thus in air, ASTRAL CPVC PRO Piping System does not support combustion. No flaming drips, does not increase the fire load, low flame spread, low smoke generation.

Corrosion resistance:

ASTRAL CPVC PRO Piping System gives excellent resistance even under the harshest of water conditions so there are none of the purity worries from corrosion of metal pipe or soldered joints. ASTRAL CPVC PRO Piping System keeps pure water pure.

Tough, rigid material:

ASTRAL CPVC PRO Piping System has a much higher strength than other thermoplastics used in plumbing. This means that CPVC needs less hangers and supports and there is no unsightly looping of the pipe. ASTRAL CPVC PRO Piping System has a higher pressure bearing capability. This leads to the same flow rate with a smaller pipe size.

Unaffected by chlorine in the water:

Some materials may be adversely affected by chlorine contained in the water supply, which can cause breakdown of the polymer chains and potential leaks. In this respect, ASTRAL CPVC PRO Piping System is unaffected by the chlorine present in potable water supply.

Chemical resistance:

CPVC has excellent chemical resistance to strong mineral acids and bases.

Superior insulation:

ASTRAL CPVC PRO Piping System is more energy efficient than metal pipe. As an insulator it does not lose heat the way metal pipe do. Heat loss and thermal expansion are reduced.

Cost effective:

CPVC Plumbing System is very cost effective than any other plumbing systems. It saves cost on fittings, loops, anchors, offsets, insulation, labour and expensive tools. More over CPVC plumbing systems last longer more than 50 years.

WELD-ON®

Solvent Cement for Leakage free Plumbing



ASTRAL introduces Weld-On 500 CTS and became the first company to produce reliable low VOC solvent cements for use with CPVC PRO pipe and fittings. Our Weld-On CPVC formulation has been developed for a specific application and is subject to the strictest quality control program in the industry. This program guarantees the most consistent and highest quality solvent cements commercially available.

