

Ultra PLUS

Double Wall Corrugated Pipes

...an Ideal pipes for drainage and sewerage application

IS:16098-2



CMIL-7700079217



The Supreme is the acknowledged leader of India's plastic industry. With a portfolio of over 7500 diverse products, the most comprehensive range in the industry, we cater to almost every conceivable need and application of the customer in piping. While helping the country transit from conventional to modern piping, we have several path breaking products to our credit making us a trend setter in the industry.

Having successfully introduced "Nu-drain" underground drainage and sewer system, "Eco-drain" and foam core structured wall pipes, we are now proud to offer one more variety of structured wall pipes, i.e., Double Wall Corrugated (DWC) pipes under the brand name, "Ultra Plus". Supreme Ultra plus double wall corrugated pipes are more strong than solid wall pipes of the same wall thickness and have a unique wall structure with corrugated structure externally and smooth surface internally. This specific structure gives the pipes a unique combination of stiffness and flexibility to sustain soil and traffic loads that the pipe may encounter in service while buried. Smooth inner surface allows uninterrupted flow without any blockage. These pipes produced with state of the art technology offer multiple benefits, especially as they are much lighter than any conventional pipe and are even lighter than solid wall plastic (PVC, HDPE or PP) pipes. This remarkable material property gives these pipes an edge over many other pipes in terms of handling and installation.

Jeevan bhar ka saath...

Unique features

Great flexibility - Being light in weight and elastic nature, these pipes offer lot of flexibility while installation as they are adaptable to any type of contour patterns.

Excellent stiffness - Suitable to withstand heavy overload pressure (soil and traffic loads) and sustain various loads that will encounter during installation and in use.

Perfect hydraulic properties - Glass smooth inner surface having manning's coefficient 0.009 - 0.010 (which remain constant without any deterioration during life expectancy) helps in rapid disposal of flowing waste. Such a smooth surface greatly reduces the possibility of blockages and maximizes the flow characteristics and therefore carrying capacity increases by 40% over concrete pipes.

Excellent chemical, corrosion and abrasion resistance properties - Being in plastics, these pipes are free from corrosion and offer excellent resistance to wide range of chemicals. These pipes have excellent abrasion resistance which gives an edge over metal and concrete pipes.

Watertight joints- Joints are 100% watertight and hence free from any infiltration, ex-filtration and root penetration. Due to this, surroundings remain unaffected and possibility of soil or underground water pollution is eliminated.

Easy and quick installation- Due to longer lengths and lighter weight pipes, installation becomes very convenient and fast. These pipes are very easy to joint using slip-on techniques with integrally welded or individual couplers provided with the pipes. Unlike conventional concrete or metallic pipes, these pipes do not require any heavy handling equipment for installation due to their light weight property. These pipes can be easily laid in constrained areas thereby saving additional extraneous costs. Thus these pipes are very user-friendly and cost effective.

Maintenance free - Being free from scaling, encrustation and chemical re-activeness there is no need of any regular maintenance, occasional flushing with water keeps the surface smooth and aids the usable age enhancing functions.

Long life - Being free from corrosion, chemical reactiveness and excellent abrasion resistance these pipes can last over a century.

Cost effective - 60 to 70% weight saving in comparison to solid wall plastic pipes and hence much cost effective and 95% lighter than concrete pipes.

Eco-friendly- Processing and reprocessing does not have any adverse impact on the environment and due to watertight joints there is no possibility of soil and underground water pollution.

Applications

Supreme Ultra plus DWC pipes can be used for varied application as mentioned below: -

- Underground drainage and sewer application
- Disposal of industrial effluents
- Storm water drainage
- Rainwater harvesting and ground water recharge
- Road/highway cross drainage

These applications are a very few and the PE DWC pipes are finding a new uses almost regularly adding further benefits to this superior technological marvel at a very fast pace.

Product range

Supreme DWC pipes manufactured according to IS:16098 standards are offered from 75 to 800mm dia sizes in SN 4 and SN 8 stiffness class. These pipes are made available in plain end form as well as with integral sockets along with necessary fittings. Assembly jig required for the installation is also made available.

Dimension of DWC pipes

Nominal size DN/ID series (mm)	Approx ID (mm)	Approx OD (mm)
75	75.0	90.0
100	98.0	116.0
135	131.0	156.0
150	148.5	172.5
170	166.0	198.0
200	197.4	230.5
250	248.5	289.0
300	300.0	350.0
400	395.2	465.0
500	496.7	577.0
600	594.6	685.0
*800	787.0	925.0



* This size will be shortly introduced.

Fittings



Coupler
75 to *800 mm



Bend 90°
100 to 250 mm



Bend 45°
100 to 250 mm



Adapter
100 to 300 mm



Rubber Seal
75 to *800 mm



Joining Fixture
200 to 600 mm

Adapter for DWC pipes

The specially designed adapters manufactured by the company are required for connecting double wall corrugated pipes with the inspection chambers or manholes and/or to connect R/R or pasted type socketed PVC pipes with the DWC pipes

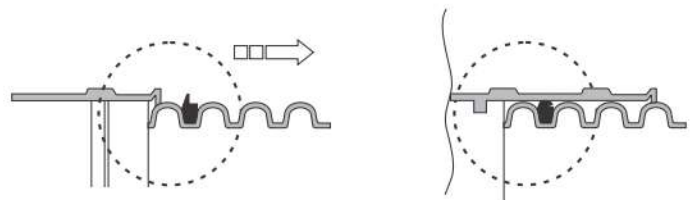
Joining procedure

Pipes up to 250mm as well as 500 and 800mm sizes are supplied plain ended with separate couplers whereas 300mm and 400mm sizes are supplied in both varieties i.e. with integral sockets as well as with separate couplers. Procedure for jointing these two types of pipes is given below: -

Joining procedure for pipes with integral socket

- Take two pipes with integral sockets and one EPDM sealing ring. Ensure that the pipe socket is free from any damage.
- Fit EPDM rubber seal into the first corrugation of the plain ended pipe, making sure that the seal is correctly placed.
- Ensure the seal is not twisted.
- Align the socket end of pipe with non socket end of the other pipe.
- Clean and remove dirt/dust/water etc. from the pipe ends and sockets.
- Mount the fixture on plain end of pipe and on socketed end of other pipe for Joining. Fixture should be duly placed in the grooves for better holding.
- Apply Silaid rubber lubricant on the EPDM rubber ring and the inner surface of socket.

- Place the pulling arms of the fixture on either side on the appropriate pin.
- Pull the pipes in to the socket till it reaches the stopper end.
- Remove the fixture and clean extra lubricant from the pipe ends.
- Ensure that the fitment is secure and the socket is not damaged or broken or burst/open anywhere. Continue the same process for all socketed pipe joints.



Joining procedure for plain ended pipes

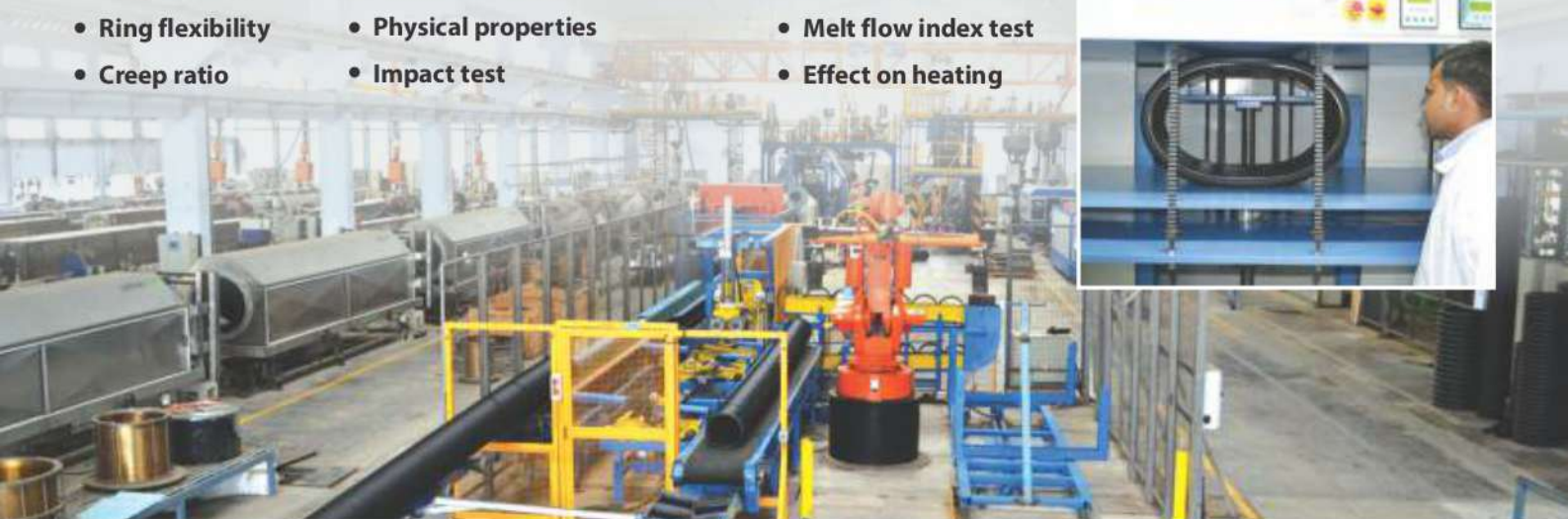
- Take two pipes, two sealing rings and one coupler.
- Fit EPDM rubber rings into the first corrugation of each pipe, making sure that the seal is correctly placed.
- Clean the pipe ends, socket of the coupler and rubber sealing rings and apply lubricant on the sealing ring placed on the pipe ends and inside of the coupler socket up to the pipe stopper.
- Align the pipe ends and coupler socket, face to face and put the joining fixture over the pipe end and coupler. With the help of fixture, pull the coupler in to the pipe till the pipe reaches to the stopper end.
- Follow the same procedure for joining of coupler socket to another plain end pipe.



Quality, testings and certifications

We are equipped to carry out all stringent tests required as per IS: 16098 and also ISO 21138 and EN 13476. This helps us to maintain superior quality and to ensure trouble free performance of our products. Some of the important tests for double wall corrugated polyethylene pipes are as given below: -

- Ring stiffness
- Ring flexibility
- Creep ratio
- Oxidation induction time test
- Physical properties
- Impact test
- Water tightness test
- Melt flow index test
- Effect on heating



• Any specification may change without prior notice. • All information contained in this literature is given in good faith and believed to be accurate and reliable. Because of many factors which may be outside our knowledge or control and affect the use of the product, no warranty is given or implied with respect to such information, nor do we offer any warranty of immunity against patent infringement. No responsibility can be accepted for any error, omissions or incorrect assumptions.