

L.D.P.E PIPES

For Drip and Micro Irrigation

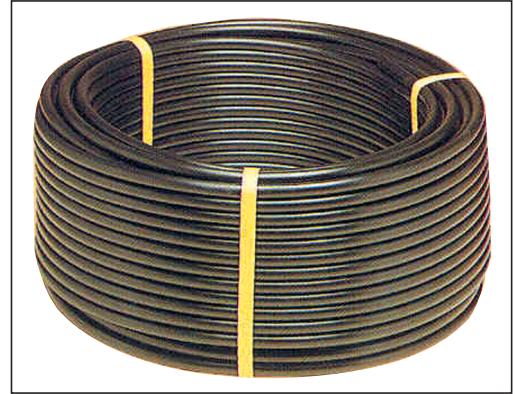
Application

ALWASAIL Low density polyethylene Pipes (LDPE) are mainly used in Drip & Micro Irrigation systems.

Design Features & Specification

ALWASAIL Low density polyethylene Pipes are manufactured from the Virgin High grade of Polyethylene resins.

LDPE- linear low density polyethylene (Density = 0.930 g/cm³) Virgin basic polymers



Both the above materials contain choice of polymers and high quality carbon black to get life under every working and weather conditions.

Minimum 2% carbon black added for resistance to Ultra-Violet deterioration.

Economical. Longer Filed Life. Very Strict Quality control.

Available in a wide range of diameters, coil lengths and working pressures.

Manufactured as per AS 2698.1 - 1984 (Type 30)

Each material has its own application field, attractions and particular benefits depending on working and installation condition, equipment available and personal preference.

Chemical Resistance :

Polyethylene is renowned for its good resistance to chemical attacks, but the degree resistance to a specific chemical will depends on concentration, temperature, and working pressure, each of which will affect the life of any thermoplastic piping system.

Manufacturing Ranges of LDPE Pipes :

Nominal Sizes : 4mm - 32mm

Working Pressure : 3.0 Bar at 20 Deg. C. (68 Deg. F)

General Properties :

Nominal Density : 0.93 gm/cm³

Carbon Black content : 2.5+/-0.5%

Environment stress crack resistance F50 : >500 Hours
(10% IGEPAL SOLVENT)

Thermal Properties :

Softening point (Load 1 kg) : 95 Deg. C
 Co-efficient of Linear expansion : 2×10^{-4} / Deg. C

Mechanical Properties:

Tensile Strength : 115-140 Kg/cm²
 Elongation at break : >500%
 Modulus of leasticity : 1200 Kg/cm²

Manufacturing Standard :

All low density Polyethylene pipe supplied by AL-WASAIL Irrigation is made in accordance with Australian Standard AS2698.1 - 1984

Pipe Color :

The color of Al-Wasail LDPE pipe is black especially to provide high protection to degradation due to the UV radiation and so there is no limitation in external use of PE pipe as they are designed to withstand continuous solar radiation over a 50 years period at leasts.

AL-WASAIL LDPE PIPE MANUFACTURED ACCORDING TO AUSTRALIAN STANDARD AS 2698.1 - 1984 DRIP IRRIGATION TUBING (TYPE 30)

Material : PE-LD
 Working pressure : 3 Bar at 20 Deg. C. (68 Deg. F)
 Color : Black

Code No.	Nominal Dia De mm	Nominal Inside Dia mm	Wall Thickness mm	Working Pressure Bar	Nominal Weight kg / m	Standard Coil Length m
WS-P5-4-3	4	4	1.5	SDR 33 BLK	0.017	500
WS-P5-13-3	13	13	1.2	SDR 33 BLK	0.051	200
WS-P5-16-3	16	16	1.2	SDR 33 BLK	0.062	200
WS-P-19-3	19	19	1.3	SDR 33 BLK	0.080	200
WS-P-25-3	25	25	1.5	SDR 33 BLK	0.122	200
WS-P-32-3	32	32	2.0	SDR 33 BLK	0.200	200

Note : 1 Bar = 14.5 Psi = 0.1 Mpa = 0.1 N/mm²

Any other Diameter, Wall thickness and Coil length could be supplied on special request

LDPE Pipes Type 30 - Maximum working pressure according to water temperature

Normal Inside Diameter	Working Pressure - Bar (a)								
	20 °C	25 °C	30 °C	35 °C	40 °C	45 °C	50 °C	55 °C	60 °C
De - mm									
13	3	3	3	2	2.8	2.2	1.7	1.3	1
16	3	3	3	2.7	2.3	1.8	1.4	1.1	0.8
19	3	3	2.8	2.5	2.1	1.6	1.3	1	0.8
25	3	3	2.7	2.3	1.9	1.5	1.2	0.9	0.7

LOW DENSITY POLYETHYLENE PIPES



Micro Tube

Description	Code	Quantity Per Carton	Weight Kgs
Micro Tube 4mm	WS -P5-4		
Micro Tube 3mm	WS-P5-3		



LDPE Pipes Australian Standard

Description	Code	Quantity Per Carton	Weight Kgs
LDPE Pipes Australian Standards as (2698.1) Drip Irrigation Tubing (Type 30) Working Pressure 3 Bar At 20°C			
LDPE Pipes 13mm Wall thickness 1.2 mm	WS -P5-13-3		
LDPE Pipes 16mm Wall thickness 1.2 mm	WS-P5-16-3		
LDPE Pipes 19mm Wall thickness 1.3 mm	WS-P5-19-3		
LDPE Pipes 25mm Wall thickness 1.5 mm	WS-P5-25-3		

Qatrah Qatrah Inline Drip Tube



Description	Code	Quantity Per Carton	Weight Kgs
Qatra - Qatra Inline Dripper Tubing 16mm - 2 LPH	WS - PGR -16-2 ..		
Qatra - Qatra Inline Dripper Tubing 16mm - 4 LPH	WS - PGR -16-4 ..		
Qatra - Qatra Inline Dripper Tubing 16mm - 8 LPH	WS - PGR -16-8 ..		
Qatra - Qatra Inline Dripper Tubing 20mm - 2 LPH	WS - PGR -20-2 ..		
Qatra - Qatra Inline Dripper Tubing 20mm - 4 LPH	WS - PGR -20-4 ..		
Qatra - Qatra Inline Dripper Tubing 20mm - 8 LPH	WS - PGR -20-8 ..		
* Different Dripper Spacing Available on request.			

WS - PGR-16-2-30

- Please Specify Dripper Spacing (cm)
- Dripper Discharge 2 LPH
- Pipe Outside Diameter (mm)

PC DRIP LINE

Applications :

PC dripline is an advanced, pressure-compensating, linear low-density polyethylene drip line. The cylindrical flow-regulated inline emitters are self-contained units molded at specified intervals into the inner wall of the polyethylene tubing. Each has a self-cleaning mechanism at the water outlet chamber. Both the tubing and the drippers are manufactured from the finest quality resins to ensure uniform watering from each emitter, year after year.



Features :

- Flow regulated, self flushing inline emitters deliver equal flow at a wide range of operating pressures
- Flow uniformity regardless of operating pressure and variation along the line
- The dripper and the diaphragm are self-contained units that are molded to the interior wall of the tubing
- Turbulent flow through a large labyrinth water passage helps reduce clogging
- Made of three (3) individual sections including a cylindrical plastic housing with labyrinth water passage, a floating silicon diaphragm and a plastic receptacle
- Resistant to chemicals and fertilizers commonly used in landscaping
- Flexible tubing for easy installation
- The emitters performance is not affected by changes in water temperatures.
- Resistant to clogging
- Large pressure compensation range up to 4.3 bar.
- Drip line diameter: 16, 18 and 20 mm.
- Dripper flow rate: 1.6, 2.2 and 3.5 l/hr.



Materials :

- Liner low-density polyethylene

PC DRIP LINE

Specifications:

Model	Inside Diameter (mm)	Wall Thickness (mm)	Min. Working Pressure (bar)*	Max. Working Pressure (bar)	KD
ADI16	13.8	0.9	0.8	3.5	1.12
		1.15	0.8	4.3	0.95
ADI18	15.8	1.2	0.8	4.3	0.95
ADI20	17.4	1.0	0.8	3.5	0.85
		1.25	0.8	4.3	0.6

* Min working pressure of 0.8 bar is recommended for efficient dripline flushing.

ADI 16mm. Max. lateral length (I.D 13.8 mm, W.T 0.9 mm, Inlet pressure 2.5 bar):

Nom. Flow Rate (l/h)	Spacing Between Drippers (m)						
	0.20	0.30	0.40	0.50	0.60	0.75	1.00
1.6	86	122	156	188	218	260	324
2.2	72	103	131	157	182	216	269
3.5	51	73	94	113	131	156	195

Codes	Description
WSI PC E XX xx - xx	PC Pressure compensating

XX Ø O. D. (mm)
 xx Dropper (l/h)
 xx Emitter spacing (cm)