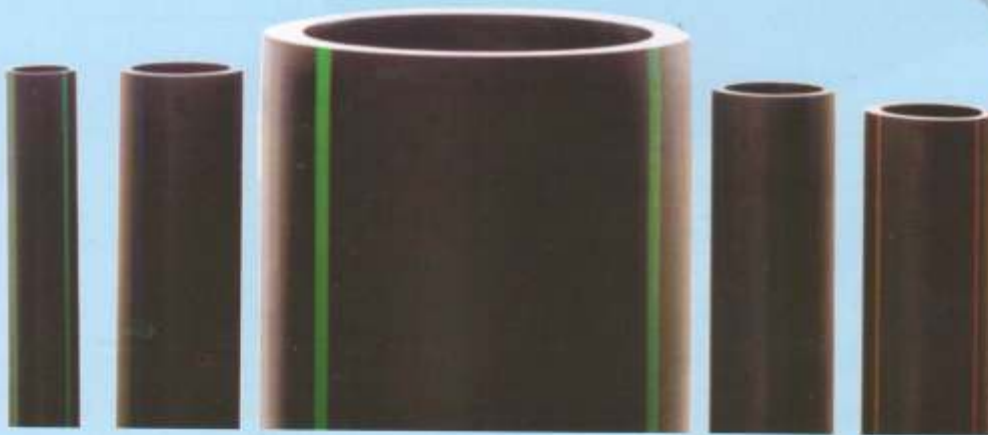


HDPE Pressure Pipe



HDPE Pressure Pipe

About HDPE Pipe

Today's modern polyethylene resins are highly engineered for rigorous applications within a wide range of applications where a tough, ductile material is required to assure long-term performance. Polyethylene pipes provide a cost effective solution for a wide range of piping applications such as water supply, drainage and sewerage, gas distribution, industrial piping for slurry and abrasive materials, liner for petroleum flow lines, electrical and telecommunication cable ducting. One of the major factors that contribute to the growth of polyethylene as a piping material is the cost savings in installation. Polyethylene pipe is a tough and durable system whilst retaining its flexibility and leak proof characteristics thus ensuring lower maintenance costs and increased service life as compared to traditional piping materials. HDPE pipes produced by SH Industries under registered trade mark "JETPLAST" currently ranges from 20 mm to 110 mm in diameter which is still being expanded. The smaller sizes are available in coils whilst the bigger pipes are cut to pipe lengths (e.g. 6 m). The company provides transport for bulk purchases to our customer's destination.

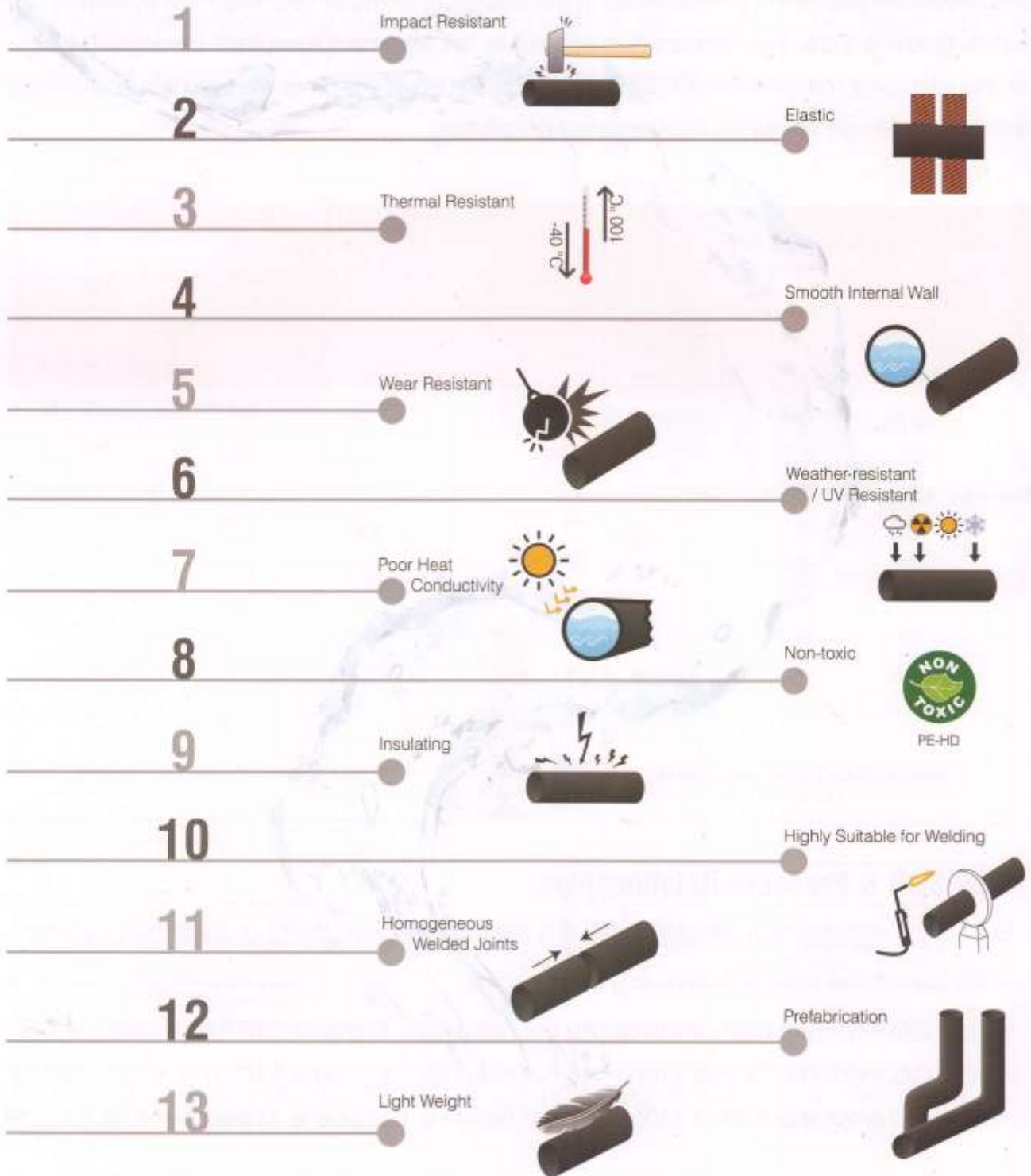
Applications

- ▶ Fire Fighting (Underground)
- ▶ Irrigation
- ▶ Potable Water
- ▶ Drainage

HDPE System

Characteristics of HDPE:

The figure summarizes many of the key characteristics of the HDPE like:



HDPE System

Design Stress & Safety Factor:

Safety factors are into account for handling conditions, service conditions and other circumstances are directly considered in the design. in terms of ISO 4427 the minimum safety factor is 1.25. This factor, when applied to the Minimum Required Strength (MRS), for the particular material classification (e.g. PE 80, PE 100), gives the maximum allowable hydrostatic design stress for the designated material.

Designation of Material	MRS at 50 years & 20°C (Mpa)	Hydrostatic Design Stress (Mpa)
PE 100	10	8
PE 80	8	6.4

Formula: $\frac{MRS}{c} = 1.25$



Pipe SDR & Pressure Relationships:

SDR is the standard dimensional ratio, it is the ratio between the O.D. (Outside Diameter) of the pipe & the wall thickness. E.g.:

As per ISO 4427, the SDR of 110mm 10 bar rated PE 100 pipe is $110/6.6 = 16.66$ i.e. SDR 17

As per ISO 4427, the SDR of 110mm 16 bar rated PE 100 pipe is $110/10 = 11$ i.e. SDR 11

As per ISO 4427, the SDR of 110mm 20 bar rated PE 100 pipe is $110/12.3 = 8.94$ i.e. SDR 9

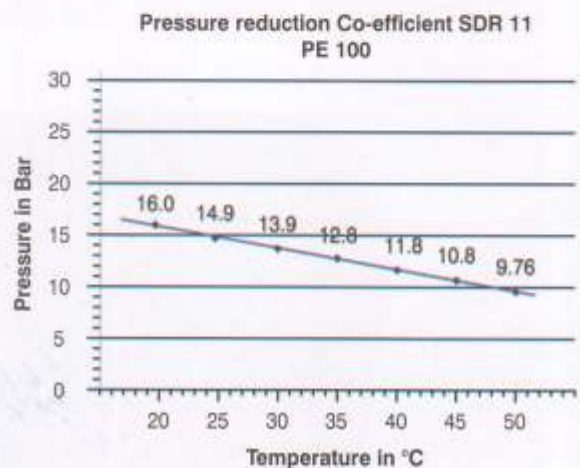
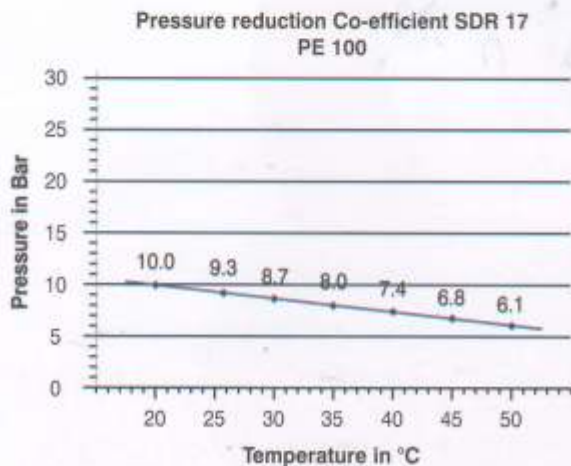
HDPE System

Pressure Reduction Co-Efficient for PE 100 as Per ISO 4427:2007:

When a HDPE piping system is operated at a continuous constant temperature higher than 20°C, a pressure reduction co-efficient as given in the below tables are applicable.

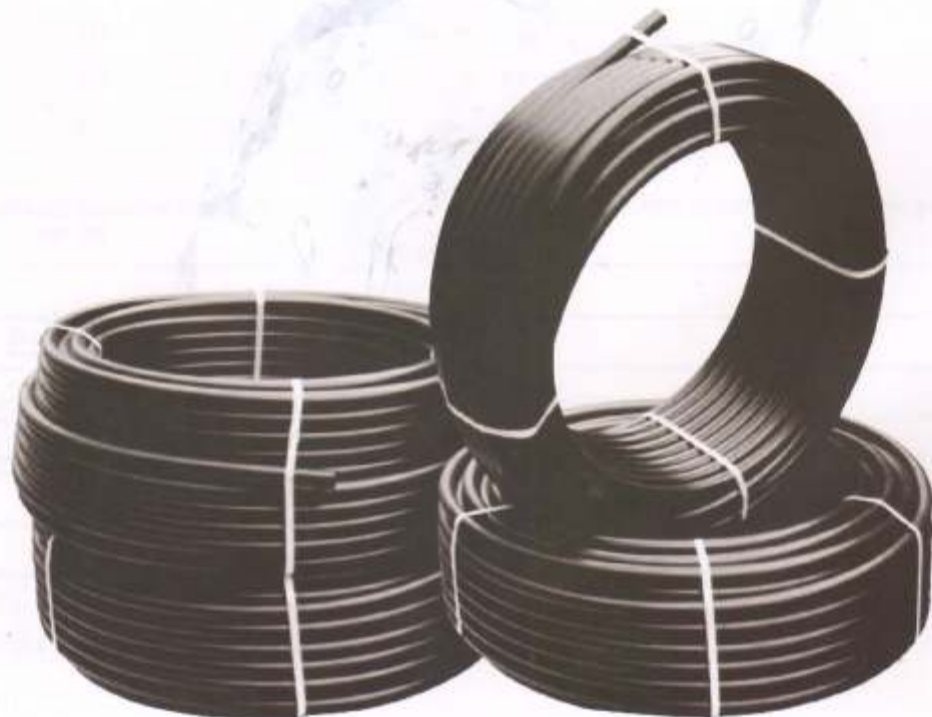
From the below table, Pressure rating of different SDRs at various level of temperature can be determined, therefore pipe selection can be made early at the design stage.

PE 100							
Temperature °C	20	25	30	35	40	45	50
Pressure Reduction Co-efficient	1	0.93	0.87	0.80	0.74	0.675	0.61
SDR	Pressure in Bar						
7.4	25.0	23.3	21.8	20.0	18.5	16.87	15.25
9.0	20.0	18.6	17.4	16.0	14.8	13.50	12.20
11.0	16.0	14.9	13.9	12.8	11.8	10.80	9.76
13.6	12.5	11.6	10.9	10.0	9.3	8.40	7.60
17.0	10.0	9.3	8.7	8.0	7.4	6.80	6.10
21.0	8.0	7.4	7.0	6.4	5.9	5.40	4.90
26.0	6.0	5.6	5.2	4.8	4.4	4.00	3.70
33.0	5.0	4.7	4.4	4.0	3.7	3.40	3.00
41.0	4.0	3.7	3.5	3.2	3.0	2.70	2.40



HDPE Pressure Pipe

Dimension Ratio	SDR-11	SDR-13.6	SDR-17	SDR-21	Standard Length(m)
Working Pressure (Bar)	PN-16	PN-12.5	PN-10	PN-08	
Outer Diameter (mm)	Min Wall Thickness(mm)	Min Wall Thickness(mm)	Min Wall Thickness(mm)	Min Wall Thickness(mm)	
20	1.9	1.8	-	-	100
25	2.3	1.9	1.8	-	100
32	2.9	2.4	1.9	-	100
40	3.7	3.0	2.4	1.9	100
50	4.6	3.7	3.0	2.4	100
63	5.8	4.7	3.8	3.0	100
75	6.8	5.6	4.5	3.6	50
90	8.2	6.7	5.4	4.3	50
110	10.0	8.1	6.6	5.3	06



PP Compression Fittings

Product Range

PP Compress



PP Compression Fittings

Polypropylene (PP) Compression fittings are approved for use in contact with drinking water. These fittings offer exceptional joint security for metric OD polyethylene (PE) pipes and form a seal without distorting the pipe or restricting the pipe bore. The PP Compression fittings range is suitable for potable water distribution mains and irrigation systems

Product Specification

- Joints Body: Black Polypropylene
- Lock-nut: Blue Polypropylene (RAL 5012)
- Gasket: 75 Shore (NBR) nitric rubber
- Locking ring: white polyacetale
- Reinforced rings: Stainless steel AISI 430
- Clamp Saddles Body and gasket: same as the joints

Advantages

- Safe and durable
- Fast and easily connected
- Perfect water tightness
- Locking nut for a clinching system
- Simple insertion of the tube in the fitting
- No special workforce required
- High resistance to temperature and ultraviolet shocks



Product Range

End Cap



COD.	D(mm)	Pack
705 020	20	160
705 025	25	112
705 032	32	60
705 040	40	36
705 050	50	24
705 063	63	10
705 075	75	6
705 090	90	4
705 110	110	3

PE Compression x male bsp thread



COD.	SIZE	Pack
144 020	20x1/2" M	160
144 025	25x3/4" M	60
144 032	32x1" M	50
144 040	40x1-1/4" M	20
144 050	50x1-1/2" M	20
144 063	63x2" M	10
144 075	75x2-1/2" M	8
144 090	90x3" M	6
144 110	110x4" M	4

Flanged Adapter



COD.	D(mm)	Pack
714 040	40	20
714 050	50	16
714 063	63	12
714 075	75	8
714 090	90	6
714 110	110	3

Female Adapter



COD.	D(mm)	F(BSP)	Pack
703 020	20	G 1/2 (f)	300
703 021	20	G 3/4 (f)	280
703 024	25	G 1/2 (f)	200
703 025	25	G 3/4 (f)	200
703 026	25	G 1 (f)	160
703 031	32	G 3/4 (f)	150
703 032	32	G 1 (f)	120
703 039	40	G 1 (f)	100
703 040	40	G 1-1/4 (f)	100
703 050	50	G 1-1/2 (f)	60
703 063	63	G 2 (f)	30
703 075	75	G 2-1/2 (f)	12
703 090	90	G 3 (f)	12
703 110	110	G 4 (f)	4

Product Range

90o Tee



COD.	D(mm)	Pack
709 020	20	100
709 025	25	60
709 032	32	40
709 040	40	20
709 050	50	15
709 063	63	7
709 075	75	4
709 090	90	4
709 110	110	2

90 Tee Female Threaded Offtake



COD.	D(mm)	F(BSP)	Pack
710 020	20	G 1/2 (f)	120
710 021	20	G 3/4 (f)	120
710 024	2	G 1/2 (f)	80
710 025	25	G 3/4 (f)	80
710 031	32	G 3/4 (f)	40
710 032	32	G 1 (f)	48
710 039	40	G 1 (f)	32
710 040	40	G 1 - 1/4 (f)	32
710 050	50	G 1 - 1/2 (f)	18
710 063	63	G 2 (f)	10
710 075	75	G 2 - 1/2 (f)	6
710 090	90	G 3 (f)	6
710 110	110	G 4 (f)	4

90 Tee Male Threaded Offtake



COD.	D(mm)	F(BSP)	Pack
711 020	20	G 1/2 (M)	120
711 021	20	G 3/4 (M)	120
711 024	25	G 1/2 (M)	80
711 025	25	G 3/4 (M)	80
711 026	25	G 1 (M)	80
711 032	32	G 1 (M)	48
711 040	40	G 1 - 1/2 (M)	32
711 050	50	G 1 - 1/2 (M)	30
711 063	63	G 2 (M)	12
711 075	75	G 2 - 1/2 (M)	6
711 090	90	G 3 (M)	6
711 110	110	G 4 (M)	4

90 Reducing Tee



COD.	D(mm)	D(mm)	Pack
713 025	25	20	72
713 032	32	25	40
713 040	40	32	25
713 050	50	40	16
713 063	63	50	12
713 075	75	63	4
713 090	90	75	4
713 110	110	90	2

Product Range

90° Elbow



COD.	D(mm)	D(mm)	Pack
706 020	20	20	160
706 025	25	25	112
706 032	32	32	60
706 040	40	40	36
706 050	50	50	24
708 063	63	63	10
706 075	75	75	6
706 090	90	90	4
706 110	110	110	3

90° Elbow with Female Threaded offtake



COD.	D(mm)	F(BSP)	Pack
708 020	20v	G 1/2 (f)	240
708 021	20	G 3/4 (f)	240
708 024	25	G 1/2 (f)	200
708 025	25	G 3/4 (f)	160
708 030	32	G 1/2 (f)	160
708 031	32	G 3/4 (f)	80
708 032	32	G 1 (f)	80
708 033	32	G 1-1/4 (f)	80
708 039	40	G 1 (f)	60
708 040	40	G 1-1/4 (f)	60
708 050	50	G 1-1/2 (f)	30
708 063	63	G 2 (f)	20
708 075	75	G 2-1/2 (f)	12
708 090	90	G 3 (f)	12
708 110	110	G 4 (f)	6

90° Elbow with male Threaded offtake



COD.	D(mm)	F(BSP)	Pack
707 020	20	G 1/2 (M)	240
707 021	20	G 3/4 (M)	240
707 024	25	G 1/2 (M)	200
707 025	25	G 3/4 (M)	160
707 026	25	G 1 (M)	160
707 030	32	G 1/2 (M)	80
707 031	32	G 3/4 (M)	80
707 032	32	G 1 (M)	80
707 040	40	G 1-1/4 (M)	60
707 041	40	G 1-1/2 (M)	60
707 050	50	G 1-1/2 (M)	30
707 063	63	G 2 (M)	20
707 075	75	G 2-1/2 (f)	12
707 090	90	G 3 (M)	12
707 110	110	G 4 (M)	6

Coupling



COD.	D(mm)	D(mm)	Pack
701 020	20	20	160
701 025	25	25	120
701 032	32	32	80
701 040	40	40	50
701 050	50	50	40
701 063	63	63	18
701 075	75	75	10
701 090	90	90	6
701 110	110	110	4

Product Range

Reducing Coupling



COD.	D(mm)	D(mm)	Pack
702 025	25	20	140
702 031	32	20	80
702 032	32	25	80
702 039	40	25	70
702 040	40	32	60
702 049	50	32	30
702 050	50	40	30
702 062	63	40	20
702 063	63	50	20
702 074	75	50	10
702 075	75	63	10
702 089	90	63	6
702 090	90	75	6
702 110	110	90	4

Male Adapter



COD.	D(mm)	F(BSP)	Pack
704 020	20	G 1/2 (M)	300
704 021	20	G 3/4 (M)	300
704 024	25	G 1/2 (M)	280
704 025	25	G 3/4 (M)	200
704 026	25	G 1 (M)	180
704 030	32	G 1/2 (M)	120
704 031	32	G 3/4 (M)	120
704 032	32	G 1 (M)	120
704 033	32	G 1-1/4 (M)	120
704 039	40	G 1 (M)	100
704 040	40	G 1-1/4 (M)	100
704 041	40	G 1-1/2 (M)	100
704 049	50	G 1-1/4 (M)	72
704 050	50	G 1-1/2 (M)	72
704 051	50	G 2 (M)	48
704 063	63	G 2 (M)	24
704 074	75	G 2 (M)	15
704 075	75	G 2-1/2 (M)	12
704 076	75	G 3 (M)	12
704 090	90	G 3 (M)	10
704 110	110	G 4 (M)	10

Reinforced Clamp Saddle



COD.	DxG (Min) F(BSP)	BOLTS	Pack
7607 642	25xG 1/2 (F)	2	150
7607 643	25xG 3/4 (F)	2	150
7607 652	32xG 1/2 (F)	2	150
7607 653	32xG 3/4 (F)	2	150
7607 654	32xG 1 (F)	2	150
7607 662	40xG 1/2 (F)	2	150
7607 663	40xG 3/4 (F)	2	150
7607 664	40xG 1 (F)	2	150
7607 672	50xG 1/2 (F)	2	150
7607 673	50xG 3/4 (F)	2	150
7607 674	50xG 1 (F)	2	150
7607 675	50xG 1-1/4 (F)	4	80
7607 676	50xG 1-1/2 (F)	4	80
7607 682	63xG 1/2 (F)	4	80
7607 683	63xG 3/4 (F)	4	80
7607 684	63xG 1 (F)	4	60
7607 685	63xG 1-1/4 (F)	4	60
7607 686	63xG 1-1/2 (F)	4	60
7607 687	63xG 2 (F)	4	60
7607 692	75xG 1/2 (F)	4	60
7607 693	75xG 3/4 (F)	4	60
7607 694	75xG 1 (F)	4	60
7607 695	75xG 1-1/4 (F)	4	60
7607 696	75xG 1-1/2 (F)	4	60
7607 697	75xG 2 (F)	4	60
7607 6A2	90xG 1/2 (F)	4	30
7607 6A3	90xG 3/4 (F)	4	30
7607 6A4	90xG 1 (F)	4	30
7607 6A5	90xG 1-1/4 (F)	4	30
7607 6A6	90xG 1-1/2 (F)	4	30
7607 6A7	90xG 2 (F)	4	48
7607 6A8	90xG 2-1/2 (F)	4	25
7607 6B2	110xG 1/2 (F)	4	36
7607 6B3	110xG 3/4 (F)	4	36
7607 6B4	110xG 1 (F)	4	36
7607 6D2	160xG 1/2 (F)	4	15
7607 6D3	160xG 3/4 (F)	4	15
7607 6D4	160xG 1 (F)	4	15

HDPE Pipes



About The Product

This special product of JETPLAST HDPE Pipe series comes in royal yellow color available in sizes ranging from 1/2" inches to 2- 1/2 " inches. The pipe is rolled in coils from 500ft to 300ft depending on diameter.

HDPE Pipes



Sr#	Pipe Size	Wall Thickness (mm)	Roll Size (ft.)
1	1/2 Inch	2.2	500
2	3/4 Inch	2.3	500
3	1 Inch	1.9	500
4	1 1/4 Inch	2.7	500
5	1 1/2 Inch	2.9	300
6	2 Inch	3.6	300
7	2 1/2 Inch	5.21	300