

Revision 2

Revised on: April 11, 2017

HDPE Data Sheet

	Property	Description	Applicable Standard
1	HDPE Pipe Color	Black is the standard color. However, pipes can be made in a different color should this be required. # Gas Pipe: See note	
2	Material	HDPE PE 100 virgin raw material	
3	Material Density	0.957 to 0.958 g/cm ³	ISO – 1183
4	Melt Flow Index	190° C / 5 kg – 0.23 g/10 minutes	ISO – 1133
5	Carbon Black Content	2.00 to 2.15 %	ISO – 6964
6	Oxidation Induction Time (OIT)	At 200 Degree C ≥ 20 min.	ISO 11357-6
7	Moisture Content	0.030 %	ISO – 11512
8	Volatile Content	0.035 %	EN -12099
9	Standards	HDPE pipes are manufactured to SABS ISO specifications	SANS ISO 4427
10	Tensile Yield Strength	26 MPa	ISO 527
11	Ultimate Tensile Strength	35 MPa	ISO 527
12	Ultimate Elongation	≥ 350%	ISO 527
13	Elastic Modulus	1100 MPa	ISO 527
14	Design Stress	8.0 MPa	SANS ISO 4427
15	Hydrostatic Pressure Test	@ 80 deg. C – 165 / 1000 Hrs	ISO 1167-1/2
16	Management Quality System	ISO 9001: 2008	
17	Membership	SAPPMA	
18	Pipe Marking	As per SANS requirements	SANS ISO – 4427

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HDPE Data Sheet – Continued

19	Storage Temperature	BLACK PIPES: Normal exposure to sunlight will not damage the pipe	Extreme conditions or extended storage time – Place cover over pipes or store in the shade
20	Working Pressures	400-630-800-1000-1250-1600-2000-2500 kPa	SANS ISO 4427
21	Pressure Class (PN)	4-6-8-10-12.5-16-20-25	SANS ISO 4427
22	Coils	From 20 to 110mm in 50 or 100 meter coils	
23	Straight Lengths	From 20 to 630mm in straight lengths : 6 / 9 / 12 meters	
24	Kinking of Pipes	Pipes up to 110mm in classes 6 and 8 may kink	

Pipes which are nonblack does not carry and SANS 4427 mark.

Gas Pipe: HDPE Pipes for Gas application will be produced to SANS 4437 specification. The standard color of the pipe is orange.