

I. TECHNICAL SPECIFICATION FOR PIPES AND FITTINGS

HDPE PIPE SPECIFICATIONS

No.	Attribute	Minimum technical specs	Indicate
1	Standard	HDPE Pipes shall be manufactured in accordance with ISO 4427:2007 Standard	
2	Compound Material	The material from which the pipes are made shall be in accordance with ISO 4427-1. All pipes shall be manufactured using pre-compounded carbon black, bimodal, high-density polyethylene MRS10.0 material i.e. (PE100).	
3	General appearance	When viewed without magnification, the internal and external surfaces of pipes shall be smooth, clean, and free from scoring, cavities, and other surface defects. The pipe ends shall be cut cleanly and square to the axis of the pipe.	
4	Color	The pipes shall be black with colored identification stripes with protection from UV light.	
5	Test certificates	The supply shall provide test certificates for the pipes such as hydrostatic pressure test certificate,	
6	Dimensions	The dimensions of the pipe shall be measured in accordance with ISO3126.	
7	Length of coils	The length coils of the 32mm HDPE pipes shall be 200metres to minimize the number of joints to be done in the field.	
MARKING			
8a	General	All pipes shall be permanently and legibly marked in such a way that the marking does not initiate cracks or other types of failure and such that normal storage, weathering, handling, installation and use do not affect the legibility of the marking. The color of the printed information shall differ from the basic color of the product. The marking shall be such that it is	
8b	Stripe Markings	Each pipe shall a minimum of 3 equi-spaced blue longitudinal stripes indicating medium of fluid transported in the pipes i.e. water as the medium transported within the pipes	

8c	The minimum required marking shall be in accordance with Table1 , with the frequency of markings being <u>not less than once per Meter:</u>		
	Table1 —Minimum required/marking		
	Aspect	Marking	
	Standard Number	ISO4427	
	Manufacturer's identification	Name or symbol	
	Dimensions (<i>dn</i> × <i>en</i>)	Nominal diameter and Pipe wall thickness	
	Material and designation	PE100	
	Pressure rating in bars	Nominal Pressure	
	Production period	Date or code	
	Country of Production	Kenya	
	Company name	NARUWASCO	
HDPE Fittings			
9a	Compression Fittings	All HDPE compression fittings including markings must be manufactured according to ISO 14236:2000 standard	
9b	EPDM Rubber ring	EPDM rubber rings for HDPE pipes must be manufactured in line with EN 681-1 standard	
9c	Markings on the Fittings	The manufacturer's name or trademark, the nominal outside diameter of the pipe, the nominal pressure of the fitting and the nominal diameter of the thread shall be printed on the fitting. Additional information may be given in the form of a label affixed to the fitting or package	