RELIANCE INDUSTRIES LIMITED
QUALITY ASSURANCE LABORATORY

TECHNICAL SPECIFICATION FOR 40/33mm Size PLB HDPE DUCT

S.No	Parameter	Unit	Specified Value
1	Melt Flow Index (Base Resin) (@ 5Kgs /190^{0}C)	gms/10mins	0.2-1.1
2	Density (@27^{0}C) (Base Resin)	Kg/m^3	940-958
	Finished Product Requirements		
3	Workman Ship	-	Duct Shall be free of blisters and other defect
	Dimensions		
4	Outer Diameter (Outside) Nominal	mm mm	40 +0.4
5	Wall Thickness - Nominal Tolerance	mm mm	3.5 ± 0.2
6	Ovality	mm	< 1.4
7	Inner Diameter	mm	33
8	Thickness of the Inner Layer	mm	0.28 - 0.42
9	Standard Length Nominal Tolerance	 Meters Meters	 1000 ± 100
10	Color of Duct	-	1. Blue : IT/MES Cables 2. Yellow : Other Cables
11	Tensile Strength & Elongation	N/mm2 %	Min 20 > 500
12	Reversion	%	Max 3
13	Internal Coefficient of Friction	--	≤ 0.20
14	Environmental Stress Cracking Resistance Test	Hours	No Crack or Split
15	Impact Strength	-	No Crack or Split
16	Crush Resistance Test	%	Max 10 (Upon application of load) Max 2 (Upon removal of load)
17	Oxidation Induction Time (OIT)	Minutes	Min 30
18	Hydrostatic Pressure Test (@80^{0}C/3.8mpa/48Hours)	Hours	No localized Swelling or Leakage during the test period
19	Printing on Duct	--	• Customer Name • Manufacturer Name • Size of Duct • Coil No. • Manufacturing Date • Meter Marking + Customer Requirement
20	Design Standard		
	PLB Duct Shall be of two layers	-	Two concentric layers Outer - HDPE, Inner - Silicone Lubricant Master Batch
	Inner Layer Composition	-	Continuous and Integral part with HDPE outer layer and white in color, inner layer of solid permanent lubricant shall be continuous all through and shall not come out during storage and usage throughout the life of the duct
	Suitability	-	Installing underground through which optic fibre cable is blown/Pulled.
	Maximum bending radius	-	25 times of OD of the duct
21	Accessories		
	Cable Sealing Plug		HDPE ducts will be supplied with Cable Sealing Plug
	Couplers		--NA--