

STRUCTURED WALL HDPE PIPE
FOR GRAVITY SEWER AND
STORM WATER APPLICATIONS

BENEFITS SUMMARY:

1. Lightweight
2. Double Wall
3. Corrosion Resistant
4. Crack Resistant
5. Easy to Install
6. Long Service Life

OVERVIEW.

RHO-STRUCT structured wall HDPE pipe provides all the material advantages of equivalent polyethylene solid-wall pipes, but with substantial savings in weight, thus allowing for greater ease of installation with increased cost effectiveness as compared to other gravity pipeline technologies. RHO-TECH has also gone to great lengths to further develop and enhance the pipe design eliminating shear force issues experienced with similar designs in the past.

RHO-STRUCT pipe comes in a range of pipe sizes and ring stiffness's, depending on customer requirements. The combination of raw material properties and product technology provides a lightweight engineered pipe with superior capacity for various municipal, industrial, road-building, rehabilitation, marine and PE manholes applications.

APPLICATIONS.

RHO-STRUCT is ideally suited for a wide variety of gravity applications namely:

1. Storm Water Pipelines/Culverts
2. Sewer Pipelines
3. HDPE Man Holes
4. Mine Drainage
5. Landfill Drainage/Leachate
6. Custom Holding Tanks/Attenuation
7. Biogas Generation/Extraction

SPECIFICATION.

RHO-STRUCT is manufactured to and is fully compliant as according per the ISO 21138-1 standard. All RHO-STRUCT pipe is labelled as per the ISO 21138 standard allowing for full traceability of the pipe manufacture process giving you the customer piece of mind.

PHYSICAL PROPERTIES.

Colour	Colour inside, Black outside		
Raw Material	HDPE		
MFI (Compound)	0.2 to 1.4g/10min @190°C & 5Kg		ISO 1133
Material Density	g/cm ³	>950	ISO 1133
Crush Resistance	Kn/m ²	4/8/12	SANS 21138-3
Variants	6/12/13M Length with Coupling		
Operating Temperatures	°C	-50 to +60	

SIZES.

RHO-STRUCT is available in stiffness ratings of 4KN and 8KN & 12KN across all sizes.

Pipe-Diameter-ID mm	250	300	350	400	450	500	550	600	650	700	750
ØEXT.mm-4Kn/m ²				435	490	550	610	650	727	755	810
Weight m/kg				12	15	19	20	25	27	29	36
ØEXT.mm 8Kn/m ²	290	345	395	435	506	562	610	677	727	780	810
Weight m/kg	8.5	10.5	12.5	14.0	18.0	21.0	24.0	29.0	34.0	38.0	40.0
ØEXT.mm 12Kn/m ²	290	345	395	435	506	562	610	677	727	780	810
Weight m/kg	9.5	11.5	13.5	18.0	24.0	27.0	31.0	38	42.0	47.0	50.0
No of Truck(approx)	63	48	30	30	20	16	16	16	9	9	9

Pipe-Diameter-ID mm	800	850	900	950	1000	1100	1200	1250	1400	1500	1800
ØEXT.mm-4Kn/m ²	890	940	990	1040	1090	1221	1320	1371	1520	1615	1910
Weight m/kg	40	48	51	56.0	67.0	99.0	107.0	112.0	125.0	134.0	170.0
ØEXT.mm 8Kn/m ²	895	940	1000	1050	1100	1236	1350	1386	1540	1640	1910
Weight m/kg	47.0	53.0	68.0	72.0	89.0	107.0	116.0	121.0	135.0	145.0	175
ØEXT.mm 12Kn/m ²	895	940	1000	1050	1100	1236	1350	1386	1540	1640	1910
Weight m/kg	60.0	64.0	87.0	96	121	126	135	140	155	165	195
No of Truck(approx)	9	5	5	4	4	4	4	3	1	1	1

JOINTING OPTIONS.

Butt Welded Joints.

RHO-STRUCT can be fusion welded together to offer a jointless leak free option for gravity pipeline applications should it be required.

Rubber Lined Steel Coupling Joints.

RHO-STRUCT rubber lined steel couplings are designed for jointing pipes in storm water and other types of non-pressure applications in the construction, repair, and maintenance of pipelines.

Step 1.

The pipe surface to be checked for damage. If the pipe end is in a suitable condition, it should be cleaned and marked with a line 150mm from the end.

Step 2.

The entire rubber sleeve must be pushed onto one pipe end. The rubber sleeve must be slid back over the pipe ends. The coupling must be located centrally between the marks made on each pipe end.

Step 3.

The coupling bolts must be finger tightened to secure initial positioning, ensure the coupling is square.



Step 4.

Tighten the bolts to the recommended torque rating of 45Nm.

Step 5.

The correctly installed coupling should sit neatly and square, centrally located over the two pipe ends.

FITTINGS.

RHO-STRUCT structured wall HDPE pipe also has a wide variety of fabricated fittings to suit the requirements for your project. These include segmented bends, t-pieces, and laterals.

Bends:

1° to 30°



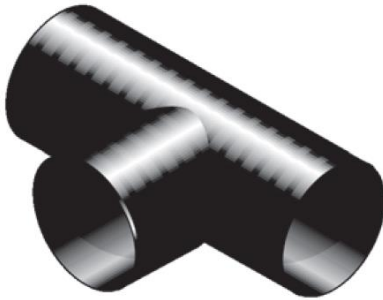
31° to 60°



61° to 90°



Equal Tees:



STRUCTURED WALL MANHOLE ,BENCHED ON THE INSIDE WITH A STEP LADDER.

