

Structured-wall PE-HD pipes and fittings for sanitary and storm water sewerage



CANALTUB:

Twin wall pipes and fittings in accordance with EN 13476-3 "... Structured-wall piping systems ... of polyethylene (PE)" for non-pressure gravity lines

Application:

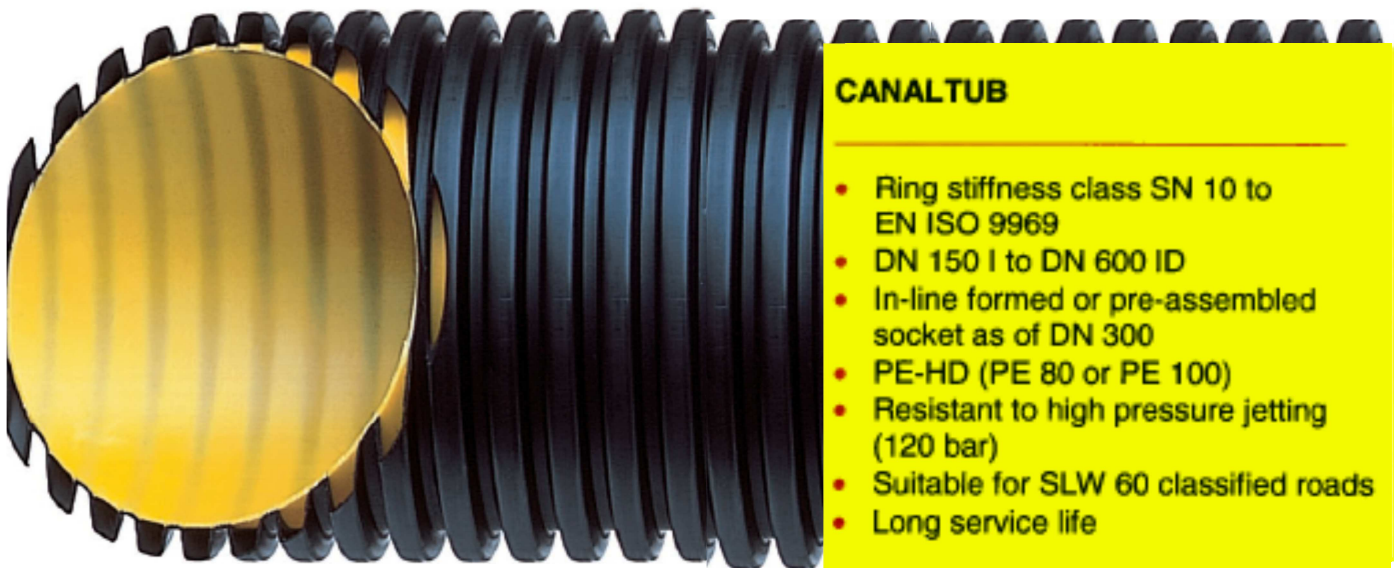
- Municipal sewers including service pipes
- Sewers for industrial waste waters
- Storm water sewers in traffic route engineering

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Corrugated and Twin
Wall Pipes of Plastics

CANALTUB : Twin Wall Sewer Pipe of Polyethylene -



CANALTUB

CANALTUB is a twin wall pipe made from PE-HD virgin material. It is used for municipal sanitary sewers as well as for the discharge of storm water in traffic route engineering.

CANALTUB meets the specifications of EN 13476-3 and complies with the leak test requirements of EN 1277 for underground pipe lines.

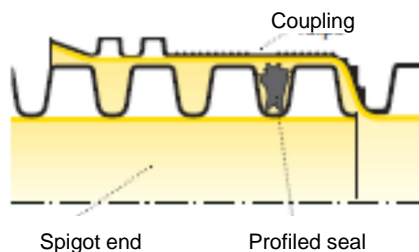
The pipe has a smooth and bright inner surface, which ensures optimum hydraulic properties and facilitates TV inspection. The corrugated outside – black for protection against ultraviolet radiation – provides for the necessary stability.



Pipe design

The excellent material properties of PE-HD provide CANALTUB with an outstanding impact and abrasion resistance, entailing a minimum risk of rupture. Pipes from 300 mm in diameter are supplied with a pre-assembled or coextruded, monolithic

and in-line formed coupling, allowing simple and reliable joining and ensuring a full-length even-level flow channel.



Example: Pipe joint with in-line formed coupling

Advantages

With CANALTUB both contractors and operators benefit from numerous technical and economic advantages compared to conventional pipe systems.

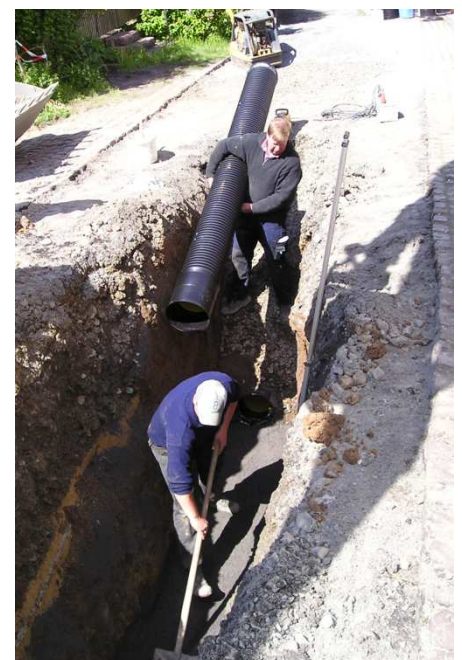
Low weight - simple handling

Due to their design, pipes and fittings are extremely light in weight so that no additional construction equipment is needed to move them on the site and safely place them in the trench.

Load-bearing capacity

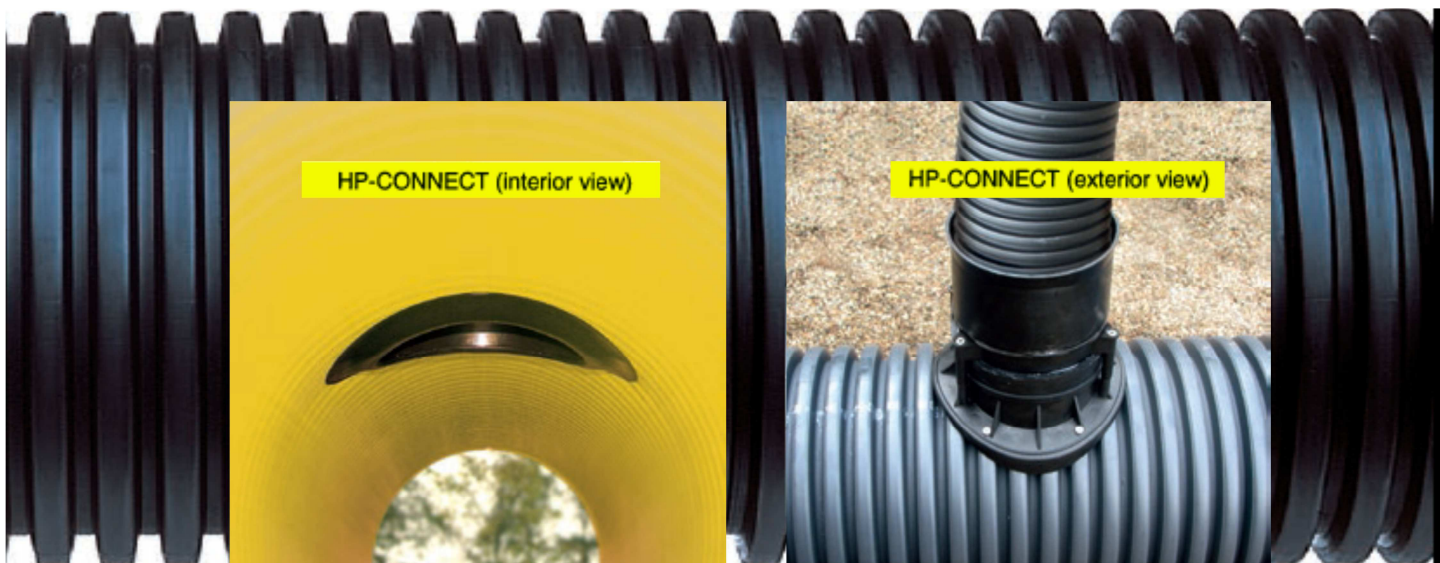
One decisive criterion for a pipe's stability is adequate ring stiffness.

CANALTUB has a ring stiffness of $S \geq 10 \text{ kN/m}^2$ (SN 10). By this it is fit for reliable and permanent use in SLW 60 classified roads under covers between 0.75 m and 10.0 m. Long-term loading tests by the Technical University of Munich, the deformation and strain results of which fully matched with practical experience, furnish proof of the pipe's fitness for this particular use.



Handling on the site

Durable, Ecologically Compatible, Economic



Impact resistance

A high-quality raw material is required for a pipe to meet the high requirements and withstand the strains it is exposed to on a construction site. The excellent impact resistance of PE-HD makes PE-HD pipes less vulnerable to rupture and cracking during construction work and in operation, compared to PP and PVC products. This is confirmed by the drop test in accordance with EN 1411, in which the pipe is struck by a weight of 12.5 kg from a height of 2.0m at a temperature of -10 °C.

Abrasion resistance

CANALTUB of PE-HD came off best in extensive tests by the so-called "Darmstadt tipping set-up" when tested with other pipe materials. The perfectly smooth PE-HD pipe inner surface hardly allows any deposits to settle. If necessary, the pipe can be flushed with 120 bar by high-pressure jetting in accordance with DIN 19523. In addition, PE-HD is attested a serviceability of more than 100 years.

Joining technique - simple and efficient

Pipes from 300 mm to 600 mm in diameter are connected, with a

profiled seal, by a pre-assembled coupling or a co-extruded monolithic coupling formed in line to one end of the pipe. For joining smaller pipe sizes, or pipe sections, there are separate sleeves with profiled seals. Both joining methods guarantee leak-tightness in accordance with EN 1277.

Range of fittings

HEGLER offers an extensive range of accessories to cover all needs in construction work and operation, including the necessary fittings like bends, branches, reducers, etc. For the connection to concrete manholes there are special "liners" for each pipe size, which ideally should be applied during manhole production. Subsequent assembly on the site is possible at increased costs.

The product range for traffic route construction is completed by inspection chambers of PE-HD. For information on our MULTI-inspect chamber systems please refer to the respective leaflets.

Connecting kit – HP-CONNECT

Connection of an intake pipe to the CANALTUB collector pipe is possible by HP-CONNECT – in a

very simple and economic way. This innovative connecting kit allows connection to be made during primary installation or subsequently at a later time.

Advantages of HP-CONNECT:

- Joint withstanding angular deflection
- Easy assembly
- Guaranteed leak-tightness
- Optimized hydraulic properties
- Economic
- Compatible with solid-wall pipe

Quality control

The constant quality of CANALTUB pipes is guaranteed by a supervision contract with the official testing laboratory, Süddeutsches Kunststoffzentrum (SKZ) at Würzburg.



Important:

- If possible, CANALTUB pipes should be transported and stored on site in the original stillage. They should always be stored on an even and smooth surface.
- Continuous support at the given gradient must be provided in the pipe trench. The supporting layer of at least 10cm must be well compacted and consist of sand/gravel of a grain size distribution of 0/8. Local depressions should be provided at joints so that the couplings do not initially rest on the support.
- Joints should be made using the recommended lubricant.
- For installation EN 1610 should be followed. It is recommended to use sand/gravel 0/8 for the embedding. The manufacturer's installation instructions have to be observed.

The information given in this brochure is the most up-to-date available and is intended to provide information on our products and their possible applications. It is not a guarantee of certain features or of their suitability for certain specific applications. Our guarantee applies to compliance with our specifications, within the scope of our General Terms and Conditions. The current edition supersedes any former versions. Subject to change.

Technical details

Nominal size	DN	150	200	250	300	400	500	600 [*]
Outside diameter	mm	174.8	235.0	293.4	352.6	463.8	579.4	690.5
Inside diameter	mm	152.3	201.8	254.8	301.9	394.9	495.8	591.2

Packing details

Nominal size	DN	150	200	250	300	400	500	600 [*]
Stillage contents	lengths	48	27	18	11	6	4	5
	m	288	162	108	66	36	24	30
Stillage dimensions								
	- length	m	6.00	6.00	6.00	6.46	6.56	6.46
	- width	m	1.20	1.24	1.24	1.16	1.24	1.24
	- height	m	1.31	1.31	1.38	1.38	1.33	1.27

Accessory

Nominal size	DN	150	200	250	300	400	500	600 [*]
Coupling		o	o	o	o	o	o	o
Sleeve		o	o	o	o	o	o	o
Profiled seal		o	o	o	o	o	o	o
Manhole liner		o	o	o	o	o	o	o
Bend 15°/30°/45°		o	o	o	o	o	X	X
Branch 45° DN 150		o	o	o	o	o	X	X
Branch 45° DN 200		-	o	X	X	X	X	X
Branch 90° DN 150		o	o	o	o	o	X	X
Branch 90° DN 200		-	o	X	X	X	X	X
Plug		o	o	o	o	o	o	o
Reducer to DN 150		-	o	o	o	o	X	X
Reducer to DN 200		-	-	o	o	o	X	X
Reducer to DN 250		-	-	-	o	o	X	X
Reducer to DN 300		-	-	-	-	o	X	X
Adaptor KG-SE ¹⁾		o	o	-	-	-	-	-
Adaptor KG-ME ²⁾		o	o	o	o	o	X	X
Adaptor concrete pipe	X							
Adaptor clay pipe	o	o	X					
Lubricant	o							

*i n preparation

X on request; 1) SE = spigot end solid wall pipe; 2) ME = socket end solid wall pipe

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