

Drainage System for Traffic Route Engineering - Chambers and Civil Engineering Drainage Pipes to DIN 4262-1



SIROPLAST-K drainage pipes
comply with DIN 4262-1 type
R2 and meet the requirements
for public works

SIROPLAST-K:

Subsoil drainage system consisting of inspection chambers and drainage pipes. PE-HD twin wall pipes with smooth inside and profiled outside in accordance with DIN 4262-1 R2.

Locally perforated pipe: DN 100 to DN 250

Totally perforated pipe: DN 100 to DN 350

Multi-purpose pipe: DN 200 to DN 350



HEGLER

Corrugated and Twin
Wall Pipes of Plastics



SIROPLAST-K: The Twin Wall Pipe System with



SIROPLAST-K civil engineering drainage pipe

- Made from PE-HD, robust, rupture-proof, suitable for winter construction
- Twin wall design with smooth inside and profiled outside, flexible along the axis
- Circular cross-section, particularly beneficent in terms of hydraulics
- Special HEGLER slotting technique: large number of short, clean-edged slots
- Large water inlet area
- Fully complying with the requirements in road construction (suitable for SLW 60 classified roads)

SIROPLAST-K - the robust drainage pipe of PE-HD

SIROPLAST-K drainage pipes are twin wall pipes made from PE-HD with a smooth inside and a profiled outside surface in accordance with type R2 of DIN 4262-1.

For protection against ultraviolet radiation the pipes are black coloured.

SIROPLAST-K drainage pipes are best suited for all characteristic applications in traffic route engineering: discharge of seepage water from the subgrade or draining off storm water in drainage systems alongside the road.

For the product to meet these requirements, HEGLER PLASTIK established their own works standard to add to the specification of DIN 4262-1 regarding ring stiffness. The ring stiffness of SIROPLAST-K products was increased to twice the value specified in the standard. By this, trouble-free handling and installation even in adverse site conditions and the suitability for SLW 60 classified roads are guaranteed.

Standard requirement DIN 4262-1 and ring stiffness values of SIROPLAST-K

Nominal size DN	100	150
Specified value	≥ SN 4	≥ SN 2
Actual value	≥ SN 8	≥ SN 5

PE-HD has an excellent resistance to chemical and biochemical substances. As a result, SIROPLAST-K drainage pipes are insensitive to all substances usually occurring in the ground. Even in landfill construction, they can be used for the drainage of slope toes or traffic routes in the upper parts of the facility.

PE-HD twin wall pipe

One decisive advantage is the pipe's light weight which, resulting from the twin wall design, is an essential benefit in view of handling. The excellent material properties of PE-HD ensure long-term and reliable operation even under difficult conditions. The pipe's outstanding impact



Pipe design

resistance, which is minimizing the risk of rupture and cracking, allows installation at temperatures down to -40 °C.

Unique slotting method/ water inlet area

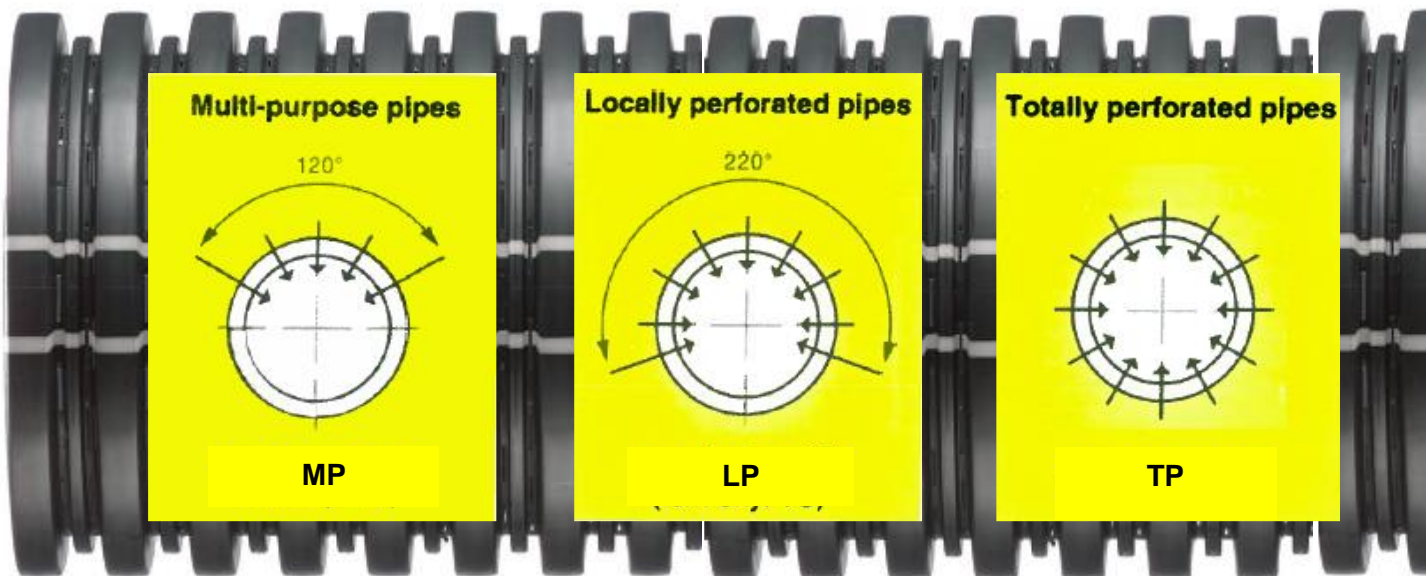
With few exceptions, the total size range of SIROPLAST-K drainage pipes is available in the three standard slotting patterns:

- Multi-purpose pipe (MP)
- Locally perforated pipe (LP)
- Totally perforated pipe (TP)

All types of pipe are featuring the HEGLER-specific slot geometry characterized by a great number of short, clean-edged water inlets in the corrugation valleys and optimum water ingress. The minimum requirement of ≥ 50cm²/m for the water inlet area is exceeded by all SIROPLAST-K drainage pipes.

MP and LP types of pipe are marked with a peak line in order to ensure proper positioning of the slotting pattern.

Unique Features



Accessories

The SIROPLAST-K pipe system is completed by an extensive range of fittings and accessories, which allows the pipe to be used in sophisticated building projects.



SIROPLAST-K multi-purpose pipes for combined discharge of drainage and surface water

Inspection and flushing chambers

Professional inspection and servicing of SIROPLAST-K drainage lines is rendered possible by HEGLER's inspection and flushing chambers, SIRO-*inspect* and MULTI-*inspect*.

The SIRO-*inspect* S 300 ($d_i = 300\text{mm}$) and SIRO-*inspect* S 400 chambers ($d_i = 400\text{mm}$) are fabricated from modified twin wall pipes. For this, the twin wall pipe is provided with flat plateaus suitable for taking up the respective branch lines in a size range from DN 100 to DN 250.

The leak-tight MULTI-*inspect* chamber system and the SIRO-*inspect* S 300 and S 400 chamber systems cover the complete size range of SIROPLAST-K pipes.

For technical details on our chamber systems please refer to the individual leaflets.

Quality control

SIROPLAST-K drainage pipes are ensured a consistently high quality by regular factory control and a supervision agreement with the official testing laboratory, Süddeutsches Kunststoffzentrum (SKZ) in Würzburg.



SIROPLAST-K drainage pipes comply with DIN 4262-1 type R2 and meet the requirements for public works.

The pipes should be used in accordance with the following technical regulations for construction:

- EN 1610
- RAS-Ew
- ATV-DVWK-A 127
- DWA 139
- ZtV Ew-Stb 91

Important:

- If possible, SIROPLAST-K pipes should be transported and stored on site in the original stillage. They should always be stored on an even and smooth surface.
- The raw material of the pipes is protected against damages caused by UV radiation. Nevertheless, outdoor storage for more than one year should be avoided.
- Continuous support at the given gradient must be provided in the pipe trench. The supporting layer of 10cm must consist of sand. 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.
- In order to ensure long-term operation of the drainage system, the pipes have to be embedded in suitable filter material. Embedding itself has to be carried through in accordance with EN 1610.
- Chambers must be surrounded by a sand/gravel layer of $d \geq 20\text{cm}$. The bedding material should be compacted in layers.
- Compacting equipment should not be applied directly on top of the pipes. In the vicinity of the pipes only light compacting equipment is to be used.
- The pipes may be flushed by using high-pressure flushing devices with a maximum flushing pressure of 120 bar.
- 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	100	150	200	250	300	350
Outside diameter	mm	118.5	174.9	234.9	293.5	352.9	399.4
Inside diameter	mm	102.0	154.5	198.0	254.5	305.5	348.0
Discharge area	cm ²	82	189	308	479	735	951
Water inlet area	cm ² /m	> 50					
Slot width		to DIN 4262-1					
Standard length (20 °C)	m	6.00					
Bending radius	m	> 5	> 6	–	–	–	–
Standard designs		–		Multi-purpose pipe (MP)			
		Locally perforated pipe (LP)				–	
		Totally perforated pipe (TP)					

Packing details

Nominal size	DN	100	150	200	250	300	350
Stillage contents	sticks	117	54	32	18	11	9
	m	702	324	192	108	66	54
Stillage dimensions							
	- length	m	6.20	6.20	6.20	6.30	6.30
	- width	m	1.18	1.20	1.24	1.24	1.24
	- height	m	1.40	1.45	1.49	1.38	1.27

Accessories

Nominal size	DN	100	150	200	250	300	350
Coupling		o	o	o	o	o	o
Profiled seal		o	o	o	o	o	o
Manhole liner		o	o	o	o	o	o
Bend 15°/30°/45°/90°		o	o	o	o	o	X
Branch 45°		o	o	o	o	X	X
Branch 90°		o	o	o	o	o	X
Outlet		o	o	o	o	o	o
Plug		o	o	o	o	o	o
Reducer to 100mm pipe		–	o	o	o	–	–
Reducer to 150mm pipe		–	–	o	o	–	–
Reducer to 200mm pipe		–	–	–	o	–	–
Adaptor KG-SE ¹⁾		o	o	o	o	–	–
Adaptor KG-ME ²⁾		o	o	o	o	o	–

X on request

1) KG-SE = spigot end solid wall pipe to EN 1401

2) KG-ME = socket end solid wall pipe to EN 1401

Special fittings on request.

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