

PE-HD conduit system for cable management for special requirements in underground and construction engineering



- Leak-/water-tight up to 0.5 bar under external and internal pressure
- Excellent compression strength for installation in concrete



HEKAPLUS:

PE-HD ducting system in twin wall design for projects in the field of infrastructure and construction engineering where special requirements have to be met. HEKAPLUS is produced in accordance with DIN 16961 and meets the increased requirements of EN 61386-24.

Application:

- Construction engineering: cable ducts with increased compression strength ($F \geq 750N$) for installation in concrete
- Infrastructure/traffic route engineering: cable ducts for power supply and communication lines for subsoil installation

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HEKAPLUS - the PE-HD Conduit System

Cable duct for special requirements

In infrastructure, and in construction engineering in particular, cable ducts have to meet specific requirements with regard to tightness and stability under load.

EN 61386-24 specifies the test requirements for cable ducts. HEKAPLUS cable ducts made of PE-HD meet these requirements. With a minimum compression strength of $F \geq 750N$ and a ring stiffness of $S \geq 10.0kN/m^2$ in accordance with EN ISO 9969, the pipes ensure reliability and a long service life.

Due to the raw material, PE-HD, the pipes are reliably rupture-proof and impact-resistant, which is particularly helpful during installation.

Tightness

A lately developed special sealing ring imparts HEKAPLUS cable ducts a leak- and water-tightness of 0.5bar in the pipe joint when subjected to external and internal pressure. This was verified by an "external pressure test" carried out in a pressure chamber under test conditions following EN ISO 13259.

Conventional tests focussing only on the pipe's resistance to internal pressure in accordance with EN 1610, this feature is of particular importance for sites where special requirements regarding tightness have to be met.

HEKAPLUS, the new conduit system for cable management, ensures leaktight joints down to maximum laying depths of 5.0m in areas with in-situ ground or strata water.

Installation in concrete

Besides tightness, adequate compression strength to bear the load is required of cable management systems when used in construction engineering like tunnel or bridge building, retaining walls or other concrete structures. With its increased compression strength of $F \geq 750N$ to EN 61386-24, HEKAPLUS is excellently suited for this purpose.

Thanks to their increased compression strength of $F \geq 750N$ to EN 61386-24 HEKAPLUS cable ducts reliably meet all standard requirements of VDE 0100-520 for installation in concrete.

The specific laying specifications for bigger structures, like reliable fixing against buoyancy and maximum cover filling during installation, have to be observed.



for Special Requirements



Accessory

The following accessories are available for the HEKAPLUS system:

- couplings
- profiled seals
- manhole connectors
- flexible bends
- end caps
- spacers

By means of the flexible bends the conduit pipe line may be led in a curve with a maximum bending of 90°. A minimum bending radius of 0.50m shall be observed.

Characteristics of HEKAPLUS

- Leak-/water-tightness up to 0.5bar (external or internal pressure)
- Increased compression strength of $F \geq 750N$ for special requirements for installation in concrete
- Ring stiffness of $S \geq 10kN/m^2$
- Nominal sizes: DN75, DN110 and DN160
- PE-HD twin wall pipe with smooth bore and profiled outside
- Halogen-free
- Excellent rupture-/impact resistance

Typical applications of HEKAPLUS cable ducts

Field of application	Compression strength $F \geq 750N$
Installation in concrete	o
Infrastructure under traffic load SLW 60	o
Underground without load	o

Maximum installation depths as fixed in the structural analysis have to be observed.



Chemical resistance

HEKAPLUS cable ducts made of PE-HD ensure an excellent chemical resistance to hydrous lyes and acids in accordance with Supplement Sheet 1 of DIN 8075.

HEKAPLUS Accessory

Important:

- If possible, pipes and fittings should be transported and stored on site in the original packing. Attention should be paid to proper handling on site.
- For the laying of the HEKAPLUS conduit system, the installation instructions of the manufacturer have to be observed.
- In addition, installation and bedding shall be carried out in accordance with the relevant technical specifications which are: EN 1610, ZTVA-StB 97 "Excavations in Traffic Areas" of FGSV, Installation Guide A 535 of Kunststoffrohrverband and TELECOM Specification ZTV-FLN 11.
- Professional embedding provided, the pipe is reliably stable to bear SLW 60 traffic loads in minimum laying depths of 0.8m (maximum 6.0m).
- **HEKAPLUS shall be exclusively used with original components from the HEKAPLUS range of accessories as well as couplers without locking cams and special seals.**

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 data

Nominal size	DN	R75	R110	R160	S110	S160
Finish/length		coiled product, 50m			sticks, 6m	
Colour		black				
Outside diameter	mm	75	110	160	110	160
Inside diameter	mm	65	95	139	95	139
Compression strength F to EN 61386-24	N	≥ 750	≥ 750	≥ 750	≥ 750	≥ 750
Ring stiffness S to EN ISO 9969	kN/m ²	≥ 12	≥ 12	≥ 10	≥ 12	≥ 10
Tightness to EN ISO 13259*	bar	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
IP code to EN 60529 (including seal)		68	68	68	68	68
IP code to EN 60529 (without seal)		54	54	54	54	54

* leak-/water-tight when subjected to external/internal pressure tests following EN ISO 13259

Packing data HEKAPLUS-S

Nominal size	DN	110	160
Stillage contents	lengths	130	65
	m	780	390
Stillage dimensions	length	6.10	6.10
	width	1.21	1.20
	height	1.33	1.47

Accessories

Nominal size	DN	75	110	160
Coupling		o	o	o
Profiled seal		o	o	o
Flexible bend		o	o	o
Manhole connector		o	o	o
End cap		o	o	o
Spacer		two-, four-, six-, eight-strand, available in one- and double-sided design		

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