gabocom

Network level 4

speed·pipe® indoor system.
Secure indoor networks.

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www.gabocom.com

Networks of the future.
Safety obliges.

Fiber-optic more and more approaches the end-user – also inside buildings efficient passive infrastructures are in demand for fiber-optic installations.

Provision even is obligatory –
and is engraved in stone for the whole European Union:

„The existence of high-speed electronic communications networks up to the enduser should […] be facilitated, in particular by high-speed-ready in-building physical infrastructure. Given that providing for mini-ducts during the construction of a building has only a limited incremental cost while retrofitting buildings […], all new buildings or buildings subject to major renovation should be equipped with physical infrastructure, allowing the connection of end-users with high-speed networks."
(Excerpt from EU directive 2014/61/EU)

Article 8 of the directive demands the integration of high-speed-ready, in-building physical infrastructures for all new buildings and extensive renovations with applied building permit after the 31st of December 2016.

But inside buildings particularly strict requirements to fire protection are effective. On the next pages you will learn more about how we can support you in your building planning.

gabocom.
Your future network partner.

From drainage pipe to speed•pipe®: what began in 1970 with the production of the first plastic pipes and general fittings for telecommunications is today a coordinated complete system from a single source. Consistent performance capabilities throughout the entire life cycle and more than 50 years of experience in telecommunications make us what we are today:

gabocom is your manufacturer of micro duct systems – made in Germany and since 2019 'a member of HellermannTyton'.

We give our advice eye-to-eye already during the development process of your fibre-optic network. Along with you we consider all requirements of the broadband extension. By means of our products you use existing duct systems, lay new duct routes and master the crossover between both variants. All times we are growing by new challenges in the FTTx-sector – every single experience gained improves our speed•pipe® system.

Not for nothing our products are complementary to one solution like made of one piece: fittings for sealing and fixing all dimensions of ducts and variants of bundles as well as our general fittings and split ducts for existing duct routes complete our portfolio as system provider.

With HellermannTyton we have found our perfect match. As a leading provider of fibre management systems, HellermannTyton offers a complete end-to-end range of FTTx solutions that, together with gabocom products, cover fibre connectivity and distribution along the broadband roll-out.

Visit our website:
www.gabocom.com

Your investment in infrastructure is supposed to be secure and successful. Thereto we are by your side with pleasure. You can find your personal contact on our website at any time. Just make use of our callback service on www.gabocom.com.

speed•pipe® indoor system.
The next level.

Regardless of the legal obligation especially in apartment buildings or highly charged buildings the infrastructure inside the building envelope must be suitable for a fast connection to the outside. But especially inside buildings particularly strict requirements are effective – primarily with regard to fire protection.

Durability and optimum blowing-in results of micro ducts are not sufficient: Installations inside buildings must meet various requirements regarding the topic fire protection.

The speed•pipe® indoor system masters the line between safety, optimum blowing-in characteristics and ease of assembly.

C €

The speed•pipe® and speed•pipe® bundles correspond to the EU Low-Voltage Directive 2014/35/EU and to the 1st Product Safety Regulation (ProdSV). Thereby gabocom speed•pipe® meet the needs of the safety- and health-requirements of the European Union. As evidence of this our duct systems are equipped with the CE label for secure, faultless and high-quality products on all European markets.

The main standard.
EN 61386-22 (VDE 0605-22-2011-12).

Duct systems cable management - Part 22: Particular requirements for pliable duct systems (IEC 61386-22:2002).

All available speed•pipe® indoor dimensions were examined and obtained their classification code according to DIN EN 61386-22. Thus the laying according to DIN VDE 0100-520 can be broken down. The speed•pipe® indoor obtain a VDE certification as well as a CE marking.

Compatibility with firewalls according to EN 61386-22
The various speed•pipe® indoor dimensions and components are suitable for being layed in firewalls for wall ducts.

Please note:
The firewall used in combination with speed•pipe® indoor must dispose of a respective applicability for "pliable duct systems according to EN 61386-22" or the direct reference to speed•pipe® indoor in its General Type Approval (ABG) or in its European Technical Assessment (ETA).

Standards, regulations and test reports.
Tested. Classified.

The central standard for speed•pipe® indoor:
EN 61386-22 (VDE 0605-22:2011-12)
Conduit system for cable management for electrical energy and for information – Part 22: Special requirements for pliable conduit systems for cable management (IEC 61386-22:2002).
All available speed•pipe® indoor dimensions were examined and obtained their classification code according to DIN EN 61386-22. Thus the laying according to DIN VDE 0100-520 can be broken down. The speed•pipe® indoor obtain a VDE certification as well as a CE marking.

Absence of halogens according to EN 60684-2
Insulating tubes – Part 2: Test methods (IEC 60684-2);
German version EN 60684-2
The products of the speed•pipe® indoor system satisfy the demanding requirements for absence of halogens.

Low smoke density according to EN 61034-2
Measurement of smoke density of cables and insulated conduits burning under defined conditions – Part 2: Testing method and requirements (IEC 61034-2:2005); German version EN 61034-2.

Fire test according to EN 60332-1-2 (IEC)
Tests on electric and fiber optic cables under fire conditions.
Part 1-2. Test for vertical flame propagation for a single small insulated wire or cable. Test method for 1 kW flame with gas-/air-mixture. speed•pipe® indoor satisfy the demanding fire test.

Classification according to DIN EN 13501-1
speed•pipe® indoor: class D s3 d2
Hard components of the speed•pipe® indoor fittings: class B s2 d0

EN 61386-22 (VDE 0605)
**Requirements for duct systems
for electrical installation**
Certificate of conformity with
factory surveillance

DIN EN 13501-1
Building products
Classification report:
speed•pipe® indoor

DIN EN 13501-1
Building products
Classification report:
Fittings for the
speed•pipe® indoor system

EN 60684-2
Absence of halogens
Test report: speed•pipe® indoor

EN 60684-2
Absence of halogens
Test report:
Fittings for the
speed•pipe® indoor system

EN 60332-1-2 (IEC)
Test standard for cables
Test report

E514120
Cable routing assemblies
Test report: speed•pipe® indoor

Test procedure.
Secure. Tested. In every respect.

EN 61386-22

Test on the final product
(Conduit systems for cable management for electrical energy and for information)
The test is carried out from 20 up to 35 seconds (depending on the dimension) with a 1 kW flame. Flames and embers are to put out within 30 seconds.

DIN EN 13501-1

Test on the final product (building product)
The test is carried out by means of a large-scale burner with a 30.8 kW flame during 26 minutes.

EN 60332-1-2

Testing standard for cables (test on the final product)
The test is carried out for 60 seconds with a 1 kW flame (lighter).

speed•pipe® indoor in the test stand.

The next level.
speed•pipe® indoor for buildings, drains and tunnels.

Especially inside buildings particularly strict requirements are effective – primarily with regard to fire protection. The speed•pipe® indoor system masters the line between safety, optimum blowing-in characteristics and ease of assembly.

Well prepared for the case of emergency.
speed•pipe® indoor for building internal infrastructure.

SPEED•PIPE® INDOOR

speed•pipe® indoor may look rather unimposing – but just optically! With regard to their technical characteristics they withstand all requirements. According to the EU Low-Voltage Directive 2014/35/EU the speed•pipe® indoor system entirely is tested in accordance with EN 61386-22, e.g.

- fire tests corresponding to the statutory security objectives
- regulations for installation and laying
- compatibility with firewalls

speed•pipe® indoor are flame-retardant and tested according to EN 60684-2 with regard to the absence of halogens and EN 61034-2 with regard to low smoke density. With speed•pipe® indoor every single homeowner and resident is well prepared for the case of emergency.

AVAILABLE DIMENSIONS OF SPEED•PIPE® INDOOR

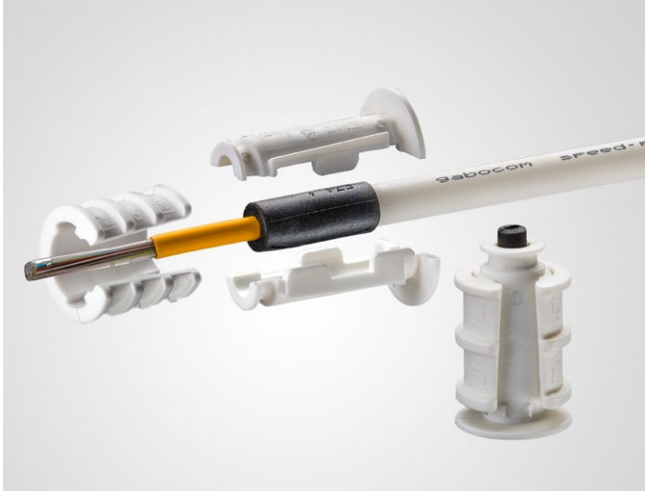| Term	Colour	D x s (mm)*	Length (m)	Non-returnable wooden spool D x B (mm)**	Item no.
speed•pipe® indoor 4 × 0,75	white	4 × 0,75	600￼￼￼￼1600	340 × 340 × 340 (box)￼600 × 360	3510￼3500
speed•pipe® indoor 5 × 0,75	white	5 × 0,75	400￼1000	340 × 340 × 340 (box)￼600 × 360	3511￼3501
speed•pipe® indoor 7 × 1,5	white	7 × 1,5	250￼500￼1250	340 × 340 × 340 (box)￼600 × 360￼700 × 370	3513￼3502￼3503
speed•pipe® indoor 10 × 1,0	white	10 × 1,0	500￼2500	700 x 370￼1200 × 370	3504￼3505
speed•pipe® indoor 10 × 2,0	white	10 × 2,0	500￼2500	700 x 370￼1200 × 370	3526￼3525
speed•pipe® indoor 12 × 2,0	white	12 × 2,0	350￼2000	700 × 370￼1200 × 370	3506￼3507
speed•pipe® indoor 14 × 2,0	white	14 × 2,0	250￼1500	700 × 370￼1200 × 370	3508￼3509

* D x s = outer diameter x wall thickness
** D × B = outer diameter × total width

➡ **Additional dimensions on request**
Overview of fittings see in the product catalog or at www.gabocom.com

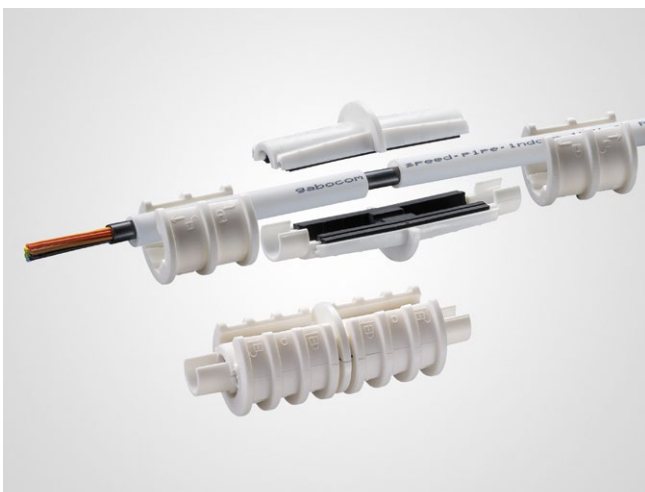# Connect, seal and fix.
The complete system.

DIVISIBLE INDOOR SEALING ELEMENTS
EZA-T 4 / 7 / 10 / 12 / 14 INDOOR

The flame-retardant, halogen-free and divisible sealing elements EZA-t indoor are reusable and are suitable for sealing empty and occupied speed•pipe® indoor. They are tensile, gas- and water-tight up to 0.5 bar and contain a lead for fiber optic cables. The integrated safety valve opens before a possible blow-in pressure of 10 bar is reached. The fittings are quick and easy to assemble without any special tools.

INDOOR DIVISIBLE SEALS MICRO
EZA-T MICRO 5 / 7 / 10 INDOOR

Due to the compact design, the flame-retardant, halogen-free and divisible elements seal speed•pipe® indoor even in extremely limited spaces. The different coloured sealing rubbers are ideally suited for all common cable diameters due to the intuitive assembly. They are gas- and water-tight up to 0.5 bar.

DIVISIBLE INDOOR CONNECTORS WITH GAS-STOP
EBM-GS 7 / 10 / 12 / 14 INDOOR

The flame-retardant and halogen-free connectors EBM-GS indoor are equipped with an integrated gas-stop. They were developed by gabocom for connecting occupied speed•pipe® indoor and for sealing them against gas and water up to 0.5 bar. The divisible fittings are tensile and quick and easy to assemble.

Term	Sealing range of cable (mm)								available for speed•pipe® indoor	Pcs. / unit
	0,8 - 2,5	1,0 -2,0	1,8 - 3,5	2,0 - 4,0	3,0 - 5,0	5,0 - 6,5	6,5 - 8,0	8,0 - 9,5		
	Item no.									
EZA-t 4 indoor		1085							4 × 0,75	40
EZA-t 7 indoor	1320			1324					7 × 1,5	40
EZA-t 10 indoor			1325		1326	1327			10 × 1,0 / 10 × 2,0	40
EZA-t 12 indoor					1328	1329			12 × 2,0	40
EZA-t 14 indoor					1331	1332	1333	1334	14 × 2,0	40

Term	Sealing range of cable (mm)											available for speed•pipe® indoor	Pcs. / unit
	0,5 - 1,0	1,0 - 1,5	1,5 - 1,8	1,5 - 2,0	1,9 - 2,2	2,0 - 2,5	2,3 - 2,5	2,5 - 3,0	3,0 - 3,5	3,5 - 4,0	4,0 - 4,5		
Coulor sealing rubber	●	●	●	●	●	●	●	●	●	●	●		
	Item no.												
EZA-t 5 micro indoor	4180	4181	4182		4183		4184					5 × 0,75	50
EZA-t 7 micro indoor	4185	4186	4187		4188			4189				7 × 1,5	50
EZA-t 10 micro indoor			4195		4196			4197	4198	4199	4200	10 × 2,0	50

Term	Sealing range of cable (mm)					available for speed•pipe® indoor	Pcs. / unit
	0,8 - 4,0	1,8 - 3,5	3,0 - 5,0	5,0 - 6,5	6,5 - 8,0		
	Item no.						
EBM-GS 7 indoor	1335					7 × 1,5	12
EBM-GS 10 indoor		1336	1337	1338		10 × 1,0 / 10 × 2,0	12
EBM-GS 12 indoor			1339	1341		12 × 2,0	12
EBM-GS 14 indoor				1343	1344	14 × 2,0	12

Connect, seal and fix.
The complete system.

INDOOR END PLUGS
ES 4 / 5 / 7 / 10 / 12 / 14 INDOOR

The flame retardant and halogen-free ES indoor are suitable for sealing speed•pipe® indoor against gas and water up to 0.5 bar. They are tensile as well as quick and easy to assemble.

INDOOR MARKING LABELS WITH PIPE PLUG
KMR 7 / 10 / 12 / 14 INDOOR

The identification labels with microduct end-cap KmR indoor serve for labelling speedpipe indoor with the customer's address in the distribution area by means of a permanent marker. They serve for the gas- and watertight sealing of empty speedpipe indoor up to 0.5 bar and are quickly and easily to assemble. By breaking off the protective cap, the customer's address remains at the speedpipe indoor after occupation with a fibre optic cable.

INDOOR BENDS
IB 7 / IB 10/12

The flame-retardant and halogen-free indoor bend IB is used for deflecting speed•pipe® indoor inside the building without any kinks. Any number of indoor bends can be stacked one onto the other.

Term	D (mm)	Pcs. / unit	Item no.
ES 4 indoor	4	50	1979
ES 5 indoor	5	50	1980
ES 7 indoor	7	50	1694
ES 10 indoor	10	50	1695
ES 12 indoor	12	25	1696
ES 14 indoor	14	25	1697

Term	D (mm)	Pcs. / unit	Item no.
KmR 7 indoor	7	40	2017
KmR 10 indoor	10	40	2018
KmR 12 indoor	12	40	2019
KmR 14 indoor	14	40	2020

Term	D (mm)	Pcs. / unit	Item no.
IB 7 with dowels	7	10	1414
IB 7 without dowels	7	10	1415
IB 10/12 with dowels	10/12	10	3965

Connect, seal and fix.
The complete system.

INDOOR CONNECTORS
DSM 4 / 5 / 7 / 10 / 12 / 14 INDOOR

The flame-retardant and halogen-free connectors DSM indoor are used for connecting speed•pipe® indoor. They are pressure-tight up to 15 bar, they are tensile and quick and easy to assemble.

DIVISIBLE INDOOR CONNECTORS
EBM 7 / 10 / 12 / 14 INDOOR

The flame-retardant and halogen-free connectors EBM indoor ensure the permanent gas- and water-tight connection of occupied speed•pipe® indoor up to 0.5 bar. The divisible fittings are tensile and are quick and easy to assemble.

TOOLS

By means of a speed•pipe® cutter the speed•pipe® indoor are cut correctly in a chipless and rectangular way.

Term	D (mm)	Pcs. / unit	Item no.
DSM 4 indoor	4	50	1298
DSM 5 indoor	5	50	1479
DSM 7 indoor	7	50	1220
DSM 10 indoor	10	50	1221
DSM 12 indoor	12	25	1222
DSM 14 indoor	14	25	1223

Term	D (mm)	Pcs. / unit	Item no.
EBM 7 indoor	7	12	1748
EBM 10 indoor	10	12	1749
EBM 12 indoor	12	12	1750
EBM 14 indoor	14	12	1751

Term	Pcs. / unit	Item no.
speed•pipe® cutter	1	1204
spare blade for speed•pipe® cutter	1	1205

In the cellar, in the masonry or on the house wall.
speed•pipe® house lead-ins

House entries guarantee professional, reliable building sealing. Whether through the basement wall or above ground through the house wall: they can be installed quickly and safely and are gas- and watertight. Installation is possible in the most common types of wall.

House lead-ins.
Master the transition.

HOUSE LEAD-INS ADSB
Set ADSB 28 / 7 | Set ADSB 7,0 - 9,0 | Set ADSB-D 7,0 - 9,0 | Set ADSB 9,0 - 12,5 | Set ADSB-D 9,0 - 12,5

The house lead-ins ADSB are to be used for buildings with basements (concrete or masonry) in environments with soil moisture and non-pressing water. Each set includes an inner and outer part to lead up to two speed•pipe® or cables into the house via the cellar gas- and watertight up to 1 bar. After the blowing-in procedure the speed•pipe® ground is lead into the integrated deflection duct and further on is lead along the wall of the cellar.

HOUSE LEAD-INS ADSB-F
Set ADSB-F 28 / 7 | Set ADSB-F 28 / 10

The ADSB-F house entries are flexible sealing elements with protective bend for buildings with / without basement - underground access - with concrete or masonry. The ADSB-F is suitable for environments with soil moisture and non-pressing water.
Each set includes an inner and outer part to lead speed•pipe® or cables into the house via the underground access.

CASING TUBE (ACCESSORIES FOR ADSB, ADSB-D, ADSB-F)
SKW 32 / 50

Applicable for the direct use in concrete, the house lead-in meets all requirements for brickwork. Please note: For allowing a complete grip of the integrated sealing by the lever mechanism also in case of brickwork we recommend the additional application of a sanded casing tube.

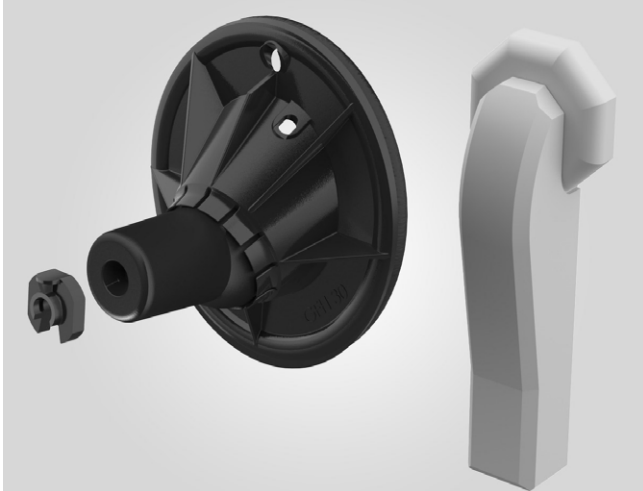| Term	Suitable for cable D (mm)	Suitable for speed•pipe® ground (mm)	Quantity cable / speed•pipe® ground	Pcs. / unit	Item no.
Set ADSB 28 / 7		7 × 1,5	1	10	42124
Set ADSB 7,0 – 9,0	7,0 – 9,0	7 × 1,5	1	10	42157
Set ADSB-D 7,0 – 9,0	7,0 – 9,0	7 × 1,5	2	10	42159
Set ADSB 9,0 – 12,5	9,0 – 12,5	10 × 2,0 / 12 × 2,0	1	10	42158
Set ADSB-D 9,0 – 12,5	9,0 – 12,5	10 × 2,0 / 12 × 2,0	2	10	42160

The set contains an inner and an outer part.

Term	Suitable for speed•pipe® ground (mm)	Quantity cable /speed•pipe® ground	Pcs. / unit	Item no.
Set ADSB-F 28 / 7	7 × 1,5	1	10	42469
Set ADSB-F 28 / 10	10 × 2,0	1	10	42470

The set contains an inner and an outer part.

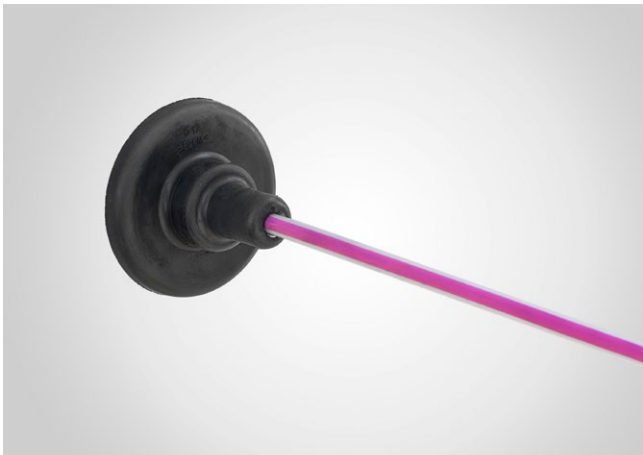| Term	Length (mm)	Pcs. / unit	Item no.
SKW 32	390	2	1987
SKW 32	500	2	1988
SKW 50	390	2	1989
SKW 50	500	2	1990
SKW 50	390	8	4546
SKW 50	500	8	5422

House lead-ins.
Master the transition.

HOUSE LEAD-INS GFH
GFH 20 2 × 7 - 10 PRO / GFH 20 1 × 12 - 16 PRO

The house lead-ins GFH, applicable in buildings with or without basement (underground access), are suitable with injection system for borehols in the most common wall types. Professional sealing is achieved by means of resin injection. The GFH are applicable for environments with soil moisture and non-pressing water or with moderate exposure to pressing water up to 3 m immersion depth. They are gas- and water-tight up to 1 bar.

HOUSE LEAD-INS MIS
MIS 40D 2 × 5 - 7 K Set / MIS 40D 1 × 9 - 12 K Set / MIS 60D K Set

For ambiences with soil moisture or with moderate exposure to pressing water up to 3 m immersion depth are the house lead-ins MIS applicable in buildings with basement. They supplement the gabocom range with universal house lead-ins with injection systems for borehols in the most common wall types. They are gas- and water-tight up to 1 bar. The professional sealing is done with the help of a resin injection.

HOUSE LEAD-INS HEO
Set HEO 7 / 10 / 12 (mit Gas-Stop) / Set MOB 7 (ohne Gas-Stop)

In the outdoor part to be mounted on the house wall, a blowing-in connector converts speed•pipe® ground to speed•pipe® indoor for the inside of the building. This above ground house lead-in fixes the cable and seals it longitudinally against gas and water up to 0.5 bar. speed•pipe® and joint are covered by unobtrusive and simple blinds and are mechanically protected.

Term	Suitable for speed•pipe® ground (mm)	Quantity cable / speed•pipe® ground	Pcs. / unit	Item no.
GFH 20 2 × 7 - 10 PRO	7 × 1,5 / 10 × 2,0	2	1	3578
GFH 20 1 × 12 - 16 PRO	12 × 2,0 / 14 × 2,0 / 16 × 2,0	1	1	3579

The set contains 1 x GFH20, 1 x Hauff-2-component resin RESINATOR, 60 ml, 1 x mixing nozzle, 1 x wall closure element,
1 x mounting disk, per variant: suitable number of pipe clamps.

➡ Necessary accessories: cartridge gun (Art-Nr: 3646)

Term	Suitable for speed•pipe® ground (mm)	Quantity cable / speed•pipe® ground	Pcs. / unit	Item no.
MIS 40D 2 × 5 - 7 K Set	7 × 1,5	2	10	3576
MIS 40D 1 × 9 - 12 K Set	10 × 2,0 / 12 × 2,0	1	10	3577
MIS 60D K Set	7 × 1,5 / 10 × 2,0 12 × 2,0 / 14 × 2,0 / 16 × 2,0	4 / 3 1	10	3575

The set contains 10 x MIS, 10 x wall cover rosettes, 10 x 2-component resin RESINATOR, 150 ml, 10 x grid sheet,10 x sealing insert, 1 x quick clamping device. The MIS 60D K set also includes 10 sealing inserts each 4 x 5-7 mm, 3 x 10 mm,
1 x 6-12mm, 1 x 12-18 mm.

➡ Necessary accessories: cartridge gun (Art-Nr: 3646)

Term	speed•pipe® ground (mm)	sealing area cable (mm)	Pcs. / unit	Item no.
Set HEO 7 (mit Gas-Stop)	7 × 1,5	0,8 - 2,7	1	3457
Set MOB 7 (ohne Gas-Stop)	7 × 1,5		1	3458
Set HEO 10 (mit Gas-Stop)	10 × 2,0	1,8 - 4,6	1	2633
Set HEO 12 (mit Gas-Stop)	12 × 2,0	3,0 - 6,8	1	3908

The set contains 1 x HEO inner part, 1 x HEO outer part with gas-stop, 1 x PVC-pipe with O-ring, 1 x speed•pipe® indoor 7 x 1.5 (1000 mm), 2 x speedpipe-cover (each 500 mm), srews and dowels.

➡ Details of house lead-ins in the product catalog or at www.gabocom.com

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