

Pipe Penetrations

+ Floor and Wall Penetrations

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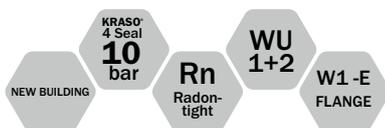
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KRASO® Floor Penetration Type BDF
Check the installation video
(Just scan the QR code!)



KRASO® Floor Penetration Type BDF

Simple, tight and approved

- + **KRASO® 4 Seal** – MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Made of dimensionally stable and pressure-resistant solid wall material: low abrasion, easy installation at low temperatures
- + Also available for KG 2000: polypropylene (PP-MD), mineral-filled, smooth walls, long-lasting
- + Also available with oil- and bitumen resistant **KRASO® Foil Flange**
- + Formed plug-in sleeve on one side for connection to KG/HT pipes
- + Including **KRASO® Cover** as building period protective cover
- + Also available as thermally insulated floor penetration!
- + DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E



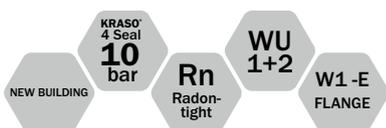
KRASO® Floor Penetration Type BDF **LG 1**

for connection to KG/HT pipes, also available with **KRASO® Foil Flange**, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50** | DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E

Item	KRASO® Type BDF • KRASO® Type BDF with foil flange							
	110	125	160	200	250	315	400	500
Diameter DN	110	125	160	200	250	315	400	500
Delivery length (in cm)	50							
KRASO® Type BDF	39 €	42 €	51 €	67 €	132 €	203 €	256 €	395 €
KRASO® Type BDF with foil flange	74 €	80 €	87 €	118 €	187 €	256 €	414 €	563 €
KRASO® PU 50	22 €							

Scope of supply: KRASO® Type BDF or KRASO® Type BDF with foil flange, KRASO® Cover as building period protective cover

Further diameters and lengths from 50 cm available on request!



KRASO® Floor Penetration Type BDF for KG 2000 **LG 1**

for the connection to system KG 2000 lines, also available with **KRASO® Foil Flange**, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50** | DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E

Item	KRASO® Type BDF for KG 2000 • KRASO® Type BDF for KG 2000 with foil flange							
	110	125	160	200	250	315	400	500
Diameter DN	110	125	160	200	250	315	400	500
Delivery length (in cm)	50							
KRASO® Type BDF for KG 2000	50 €	56 €	74 €	107 €	255 €	343 €	448 €	612 €
KRASO® Type BDF for KG 2000 with foil flange	84 €	92 €	109 €	156 €	309 €	398 €	596 €	794 €
KRASO® PU 50	22 €							

Scope of supply: KRASO® Type BDF for KG 2000 or KRASO® Type BDF for KG 2000 with foil flange, KRASO® Cover as building period protective cover

Further diameters and lengths from 50 cm on request!



KRASO® Floor Penetration Type BDF - thermally insulated - **LG 1**

for connection to KG/HT pipes or KG 2000 lines, with thermally insulated body surrounding approx. 5 cm, KRASO® Cover as an installation aid | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® Type BDF - thermally insulated -							
	110	125	160	200	250	315	400	500
Diameter DN	110	125	160	200	250	315	400	500
Delivery length (in cm)	50							
KRASO® Type BDF - thermally insulated -	189 €	201 €	224 €	307 €	492 €	616 €	711 €	833 €

Scope of supply: KRASO® Type BDF - thermally insulated -, KRASO® Cover as building period protective cover

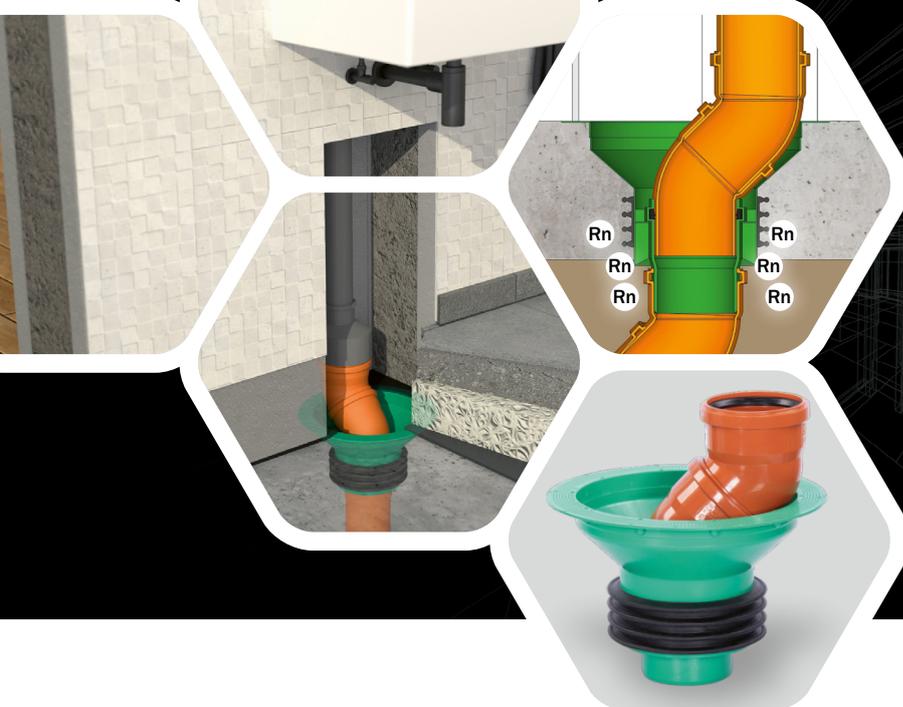
Further diameters and lengths from 50 cm on request!



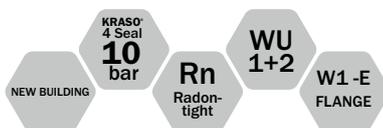
Rodding eye for KRASO® Type BDF **LG 1**

15 x 15 cm - screwable -

Diameter DN	110
Rodding eye for KRASO® Type BDF	292 €



KRASO® Universal Funnel
Check the installation video
(Just scan the QR code!)



KRASO® Universal Funnel

The floor penetration for more flexibility

- + **KRASO® 4 Seal** – MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Break-resistant solid wall material, KG 2000 system compatible
- + Displaced fall pipes can be corrected easily up to 45 degrees!
- + Integrated plug-in sleeve with diameter DN 110 and threefold reinforced lip ring
- + Surrounding connection flange with textured surface
- + Optionally available: screwable stainless steel clamping flange for fixed-loose flange construction
- + Easy installation: ready-to-use, lugs, including walkable building period protective cover
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E

KRASO® Universal Funnel **LG 1**

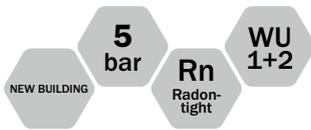
for the installation in waterproof concrete base plates for the connection of displaced KG/HT pipes and for the connection to KG/KG 2000 lines, with one-sided spigot, walkable building period protective cover. Optionally available: screwable **KRASO® Stainless Steel Clamping Flange** for the connection to non-adhesive foils | **DafStB waterproof concrete guideline: stress class 1 + 2**



Item	KRASO® Universal Funnel
Pipe: Diameter DN	110
KRASO® Universal Funnel	53 €
KRASO® Stainless Steel Clamping Flange	70 €

Scope of supply: KRASO® Universal Funnel, walkable building period protective cover, additional protective cover
Optionally available: **KRASO® Stainless Steel Clamping Flange**

Tool-free assembly!
Including building period protective cover

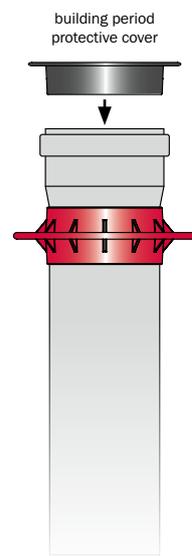


KRASO® Wall Collar

Fast, simple and tight



- + The fast, simple and tight solution for sealing pipes in waterproof concrete structures – base plate and wall!
- + Water pressure tight connection of pipelines: MPA-tested up to 5 bar!
- + IAF-tested: radon-tight!
- + Resistant to methane gas!
- + For all smooth pipes in DN 110, DN 125, DN 160 and DN 200!
- + Tool-free assembly – simple and fast:
simply pull the **KRASO® Wall Collar** over the pipe
- + Including **KRASO® Cover** as building period protective cover!
- + DafStB waterproof concrete guideline: stress class 1 + 2



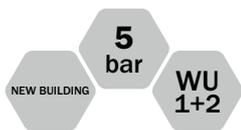
KRASO® Wall Collar **LG 1**

for water pressure tight connection of pipelines with a smooth surface (KG, KG 2000, HT) in waterproof concrete structures: base plate and wall, MPA-tested up to 5 bar | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® Wall Collar			
Diameter pipe: Diameter DN	110	125	160	200
KRASO® Wall Collar	15 €	17 €	22 €	27 €

Scope of supply: KRASO® Wall Collar, KRASO® Cover as building period protective cover

Further special designs available on request!



KRASO®

Wall Collar DKS Universal

Simple, tight, universally usable!



- + The fast, simple and tight solution for sealing pipes in waterproof concrete structures – base plate and wall!
- + Stepless onion ring technology! Scope of application 10 - 50 mm or 50 - 90 mm! For all smooth cables and pipes
- + Water pressure tight connection of pipelines: MPA-tested up to 5 bar!
- + Radon-tight – according to FHRK leaflet MB 101!
- + Resistant to methane gas!
- + With **Torque Control Wrench KRASO® DKS**: for safe and easy tightening of straps
- + DafStB waterproof concrete guideline: stress class 1 + 2

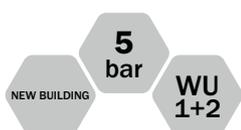
KRASO® Wall Collar DKS Universal **LG 1**

Item	KRASO® Wall Collar DKS Universal 10 - 50	KRASO® Wall Collar DKS Universal 50 - 90
Scope of application in mm	10 - 50	50 - 90
KRASO® Wall Collar DKS Universal	21 €	24 €

Scope of supply: KRASO® Wall Collar DKS Universal with Torque Control Wrench KRASO® DKS, 2 stainless steel straps

Further special designs available on request!

PIPE PENETRATIONS



KRASO®

Wall Collar DKS

Simple and fast sealing!



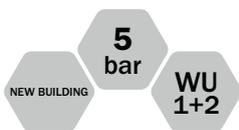
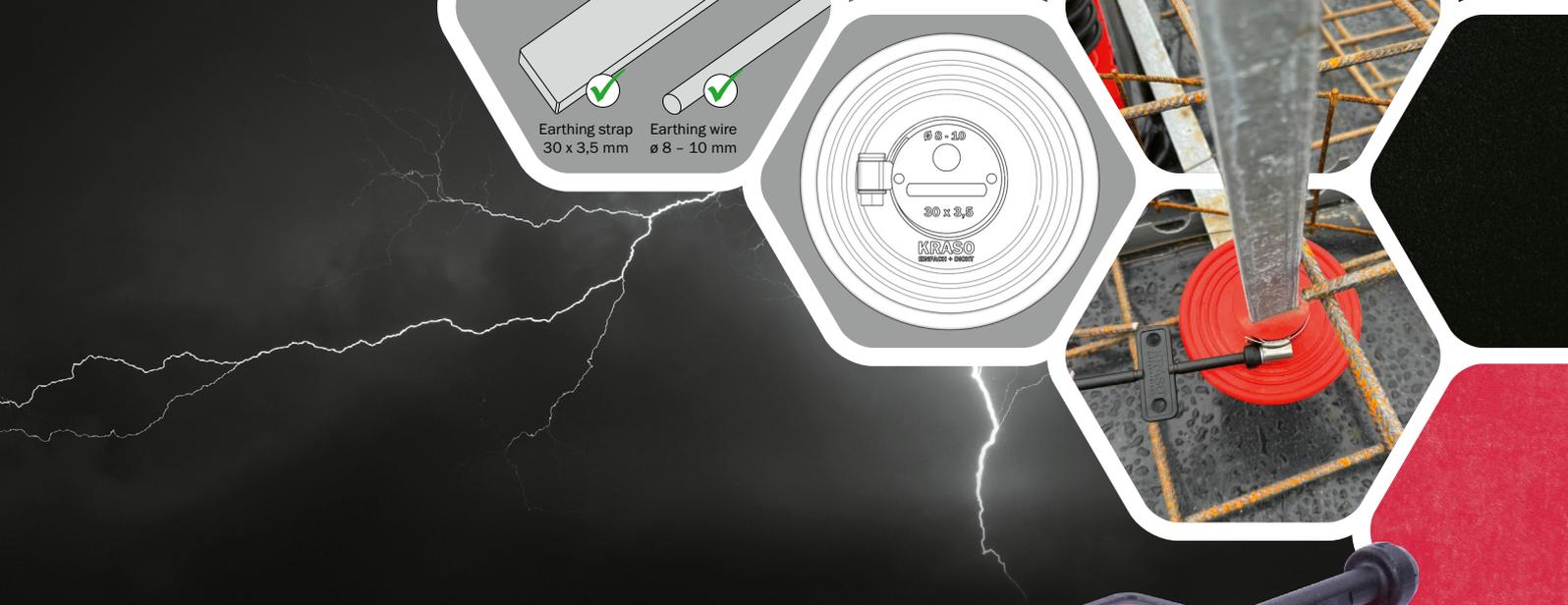
- + The fast, simple and tight solution for sealing pipes in waterproof concrete structures – base plate and wall!
- + Water pressure tight connection of pipelines: MPA-tested up to 5 bar!
- + Radon-tight – according to FHRK leaflet MB 101!
- + Resistant to methane gas!
- + With **Torque Control Wrench KRASO® DKS**: for safe and easy tightening of straps
- + DafStB waterproof concrete guideline: stress class 1 + 2

KRASO® Wall Collar DKS **LG 1**

Item	KRASO® Wall Collar DKS							
Pipe: Diameter DN	25	32	40	50	63	75	80	90
KRASO® Wall Collar DKS	16 €	16 €	16 €	16 €	19 €	19 €	19 €	19 €

Scope of supply: KRASO® Wall Collar DKS with Torque Control Wrench KRASO® DKS, 2 stainless steel straps

Further special designs available on request!



PIPE PENETRATIONS

KRASO® Wall Collar Lightning Protection Duo

Double the benefit, half the storage!

- + For the water pressure tight integration of earthing cables with factory-sealed openings: square earthing strap (30 x 3.5 mm) and earthing wire (ø 8 - 10 mm)
- + With **Torque Control Wrench KRASO® DKS**: for safe and easy tightening of straps.
- + MPA-tested up to 5 bar!
- + Resistant to methane gas!
- + Radon-tight – according to FHRK leaflet MB 101!
- + DafStB waterproof concrete guideline: stress class 1 + 2



KRASO® Wall Collar Lightning Protection Duo **LG 1**

Item	KRASO® Wall Collar Lightning Protection Duo
KRASO® Wall Collar Lightning Protection Duo	22 €

Scope of supply: KRASO® Wall Collar Lightning Protection Duo with Torque Control Wrench KRASO® DKS, 2 stainless steel straps

Further special designs available on request!



KRASO® Wall Penetration Type B
Check the installation video
(Just scan the QR code!)



KRASO® Wall Penetration Type B

The proven wall penetration made of solid wall material

- + **KRASO® 4 Seal** – MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Dimensionally and pressure-resistant solid wall material: low abrasion, easy installation at low temperatures
- + In accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)
- + Also available for KG 2000: polypropylene (PP), mineral-filled, smooth walls, long-lasting
- + Formed plug-in-sleeve on both sides for connection to KG/HT pipes
- + Including two **KRASO® Covers** as an installation aid!
- + Also available as thermally insulated wall penetration!
- + DafStB waterproof concrete guideline: stress class 1 + 2

KRASO® Wall Penetration Type B **LG 1**

in accordance with DIN EN 1401, for connection to KG/HT pipes on both sides, with water pressure tight surrounding **KRASO® 4 Seal**
| DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® Type B							
	110	125	160	200	250	315 ¹	400 ¹	500 ¹
Diameter DN	110	125	160	200	250	315 ¹	400 ¹	500 ¹
Available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50							
KRASO® Type B	52 €	62 €	69 €	97 €	239 €	395 €	473 €	571 €
Surcharge: special dimensions up to 50 cm	21 €				34 €			

¹ Only usable as push-through sleeve, because the plug-in length is not suitable for double-sided usage according to EN 1401-1

Scope of supply: KRASO® Type B, 2 KRASO® Covers as an installation aid

Further diameters and wall thicknesses available on request!



KRASO® Wall Penetration Type B for KG 2000 **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls for connection of KG 2000 pipes, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, formed plug-in sleeve on both sides and **2 KRASO® Covers** as an installation aid | **DafStB waterproof concrete guideline: stress class 1 + 2**

Item	KRASO® Type B for KG 2000							
Diameter DN	110	125	160	200	250	315 ¹	400 ¹	500 ¹
Available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50							
KRASO® Type B for KG 2000	72 €	81 €	111 €	169 €	287 €	476 €	617 €	1,067 €
Surcharge: special dimensions up to 50 cm	21 €					34 €		

¹ Only usable as push-through sleeve because the plug-in length according to EN 1401-1 is not suitable for double-sided usage

² For product technical reasons wall thickness 20 cm with **KRASO® 3 Seal**

Scope of supply: KRASO® Type B for KG 2000, 2 KRASO® Covers as an installation aid

Further diameters and wall thicknesses available on request!



KRASO® Wall Penetration Type B - thermally insulated - **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls, thermally welded **KRASO® 4 Seal** on both sides, formed plug-in sleeve on both sides, 2 **KRASO® Covers** as an installation aid and thermally insulated body surrounding approx. 5 cm | **DafStB waterproof concrete guideline: stress class 1 + 2**

Item	KRASO® Type B - thermally insulated -							
Diameter DN	110	125	160	200	250	315 ¹	400 ¹	500 ¹
Available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50							
KRASO® Type B - thermally insulated -	249 €	275 €	302 €	352 €	533 €	799 €	925 €	1,646 €

¹ Only usable as push-through sleeve, because the plug-in length is not suitable for double-sided usage according to EN 1401-1



KRASO® Wall Penetration Type SML **LG 1**

grey iron waste water pipe according to DIN EN 877 for installation in waterproof concrete walls for connection to SML pipes on both sides, with water pressure tight surrounding **KRASO® 4 Seal** and styrofoam recess core on both sides | **DafStB waterproof concrete guideline: stress class 1 + 2**

Item	KRASO® Type SML				
Diameter DN	110	125	160	200	250
Available standard wall thicknesses in cm	24 · 25 · 30				
KRASO® Type SML	84 €	100 €	126 €	227 €	332 €
Surcharge: per each additional 10 cm	12 €	13 €	16 €	38 €	44 €

Scope of supply: KRASO® Type SML incl. 2 styrofoam recess cores at the sides

Further diameters and wall thicknesses available on request! Also available in TML and KML for an additional charge!



NEW BUILDING

KRASO® Magnetic Cover for pipe penetrations DN 110

The magnetic interface for precast walls

Waterproof concrete structures in pressurised water pose particular challenges. In addition to in-situ concrete construction, building with element walls has also become established as a waterproof concrete construction method. Consistent quality and rapid construction progress are just two of the many advantages here.

Whether in-situ concrete or precast element construction, all places where pipes or cables pass through the wall pose a challenge. Here, precautions must be taken against water penetration by using pipe penetrations with waterproof sealing. These pipe penetrations are currently glued manually to the formwork tables in precast element factories using installation covers. This type of work is labour-intensive and involves a risk of incorrect positioning.

The new **KRASO® Magnetic Cover** with magnetic interface for **KRASO® Pipe Penetrations** provides a solution. Using formwork robots, the magnet can also be positioned automatically with millimetre precision for pipe penetrations, and the pipe penetration can be clicked onto the formwork of the outer shell via the cover with magnetic interface. When the element wall is turned, the magnet remains on the formwork and the magnetic cover remains in the pipe penetration as protection.

KRASO® Magnetic Cover - advantages

- + Especially for precast element factories!
- + **KRASO® Magnetic Cover** available for **KAISER** and **PRIMO** magnetic systems!
- + Suitable for all pipe penetrations in DN 110
- + Enables precise, machine-controlled positioning on the formwork table
- + Eliminates labour-intensive manual positioning and helps to avoid errors
- + Once completed, the **KRASO® Magnetic Cover** remains in the pipe penetration as protection



KRASO® Magnetic Cover
System KAISER

KRASO® Magnetic Cover
System PRIMO



KRASO® Magnetic Cover -
System KAISER



KRASO® Magnetic Cover -
System PRIMO

PIPE PENETRATIONS

KRASO® Pipe Penetrations



KRASO®
Wall Penetration
Type B



KRASO®
Wall Penetration
Type FR



KRASO®
Wall Penetration
Type DFW 4



KRASO®
Wall Penetration
Type DFW 6



KRASO®
Wall Penetration
Type DFW 8



KRASO®
Wall Penetration
Type B
for KG 2000



KRASO®
Wall Penetration
Type FR
for KG 2000



KRASO®
Wall Penetration
Type DFW 4
for KG 2000



KRASO®
Wall Penetration
Type DFW 6
for KG 2000



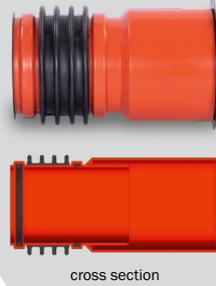
KRASO®
Wall Penetration
Type DFW 8
for KG 2000

We are happy to assist you
with advice and possible applications for the
KRASO® Magnetic Cover!
(s. page 178)





KRASO® Wall Penetration Type FR
Check the installation video
(Just scan the QR code!)



cross section



KRASO® Wall Penetration Type FR

Always the right flow direction

- + One flow direction!
- + Flexible yet water tight connection to the pipe system: stresses caused by settling of KG pipes are minimised!
- + **KRASO® 4 Seal** – MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Dimensionally and pressure-resistant solid wall material: low abrasion, easy installation at low temperatures
- + In accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)
- + Also available for KG 2000: polypropylene (PP), mineral-filled, smooth walls, long-lasting
- + DafStB waterproof concrete guideline: stress class 1 + 2

KRASO® Wall Penetration Type FR - flow direction **LG 1**

in accordance with DIN EN 1401, for installation in waterproof concrete walls, for connection to KG/HT pipes on both sides | **DafStB waterproof concrete guideline: stress class 1 + 2**

Item	KRASO® Type FR		
	110	125	160
Diameter DN	110	125	160
Available standard wall thicknesses in cm	20 ¹ · 24 · 25 · 30		
KRASO® Type FR	55 €	64 €	73 €

¹ 20 cm wall thickness: only DN 110 available

Scope of supply: KRASO® Type FR, 2 KRASO® Covers as an installation aid



KRASO® Wall Penetration Type FR for KG 2000 **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls for connection to KG 2000 pipes on both sides, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, formed plug-in sleeve on one side, one-sided spigot and 2 **KRASO® Covers** as an installation aid | **DafStB waterproof concrete guideline: stress class 1 + 2**

Item	KRASO® Type FR for KG 2000		
	110	125	160
Diameter DN	110	125	160
Available standard wall thicknesses in cm	24 · 25 · 30		
KRASO® Type FR for KG 2000	72 €	81 €	111 €

Scope of supply: KRASO® Type FR for KG 2000, 2 KRASO® Covers as an installation aid



KRASO® Wall Penetration Type Universal **LG 1**

in accordance with DIN EN 1401, for installation in waterproof concrete walls, for connection to KG/HT pipes on both sides (Uni B) or for KG/HT pipes to be pushed through (Uni D), with water pressure tight surrounding **KRASO® 4 Seal**. With markings for a simple shortening on-site to standard wall thicknesses | **DafStB waterproof concrete guideline: stress class 1 + 2**

Item	KRASO® Type Universal B • KRASO® Type Universal D		
Diameter DN	110	125	160
For wall thicknesses from ... to ... (in cm)	12 - 30	12 - 30	17.5 - 36.5
KRASO® Type Universal B KRASO® Type Universal D	52 €	62 €	69 €

Scope of supply: KRASO® Type Universal B with formed plug-in sleeve on both sides, 2 KRASO® Covers as an installation aid • KRASO® Type Universal D with integrated push-through sleeve, 2 KRASO® Covers as an installation aid

Further diameters and wall thicknesses available on request!



KRASO® Wall Penetration Type Universal for KG 2000 **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls, for connection to KG 2000 pipes on both sides (Uni B for KG 2000) or for pipes to be pushed through (Uni D for KG 2000), with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**. With markings for a simple shortening to standard wall thicknesses on-site | **DafStB waterproof concrete guideline: stress class 1 + 2**

Item	KRASO® Type Universal B for KG 2000 • KRASO® Type Universal D for KG 2000		
Diameter DN	110	125	160
For wall thicknesses from ... to ... (in cm)	15 - 30	17.5 - 30	20 - 36.5
KRASO® Type Universal B for KG 2000 KRASO® Type Universal D for KG 2000	88 €	104 €	138 €

Scope of supply: KRASO® Type Universal B for KG 2000 with formed plug-in sleeve on both sides, 2 KRASO® Covers as an installation aid • KRASO® Type Universal D for KG 2000 with integrated push-through sleeve, 2 KRASO® Covers as an installation aid

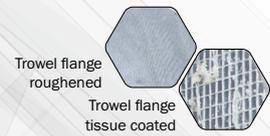
Further diameters and wall thicknesses available on request!



NBR seal **LG 1**

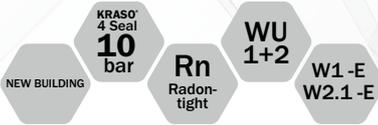
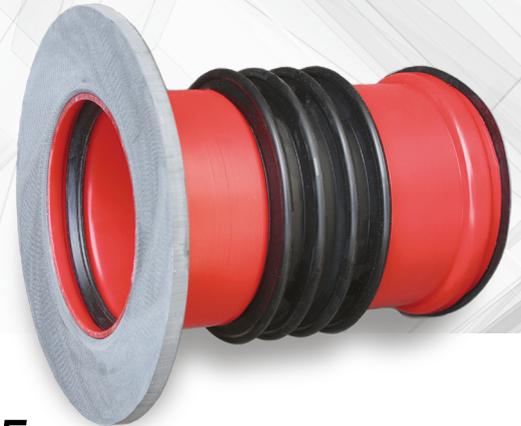
oil-resistant lip seal rings for system KG and KG 2000

Item	NBR seal							
Diameter DN	110	125	160	200	250	315	400	500
NBR seal KG	1.85 €	2.50 €	3.20 €	5.10 €	12.10 €	16.70 €	31 €	79 €
NBR seal KG 2000	5.35 €	12 €	24 €	37 €	79 €	130 €	155 €	195 €



Trowel flange roughened

Trowel flange tissue coated



KRASO® Wall Penetration Type B/SF 5

Secure connection to bitumen and reactive sealings

- + Dimensionally and pressure-resistant solid wall material: low abrasion, easy installation at low temperatures
- + Pipe and pipe material in accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)
- + **KRASO® 4 Seal** – MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Surrounding approx. 5 cm trowel flange on one side, for secure connection of bitumen thick coating such as KMB or reactive sealings: roughened or tissue coated
- + Also available: trowel flange made of PP with dovetail groove as **KRASO® Type B/SF 5 for KG 2000** for the secure gripping of bitumen thick coating
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

KRASO® Wall Penetration Type B/SF 5 **LG 1**

for installation in waterproof concrete walls for connection to KG/HT pipes on both sides, with trowel flange on one side, roughened (**KRASO® Type B/SF 5 - R**) or tissue coated (**KRASO® Type B/SF 5 - G**) for the secure connection of bitumen thick coating (e.g. KMB) and reactive sealings, surrounding approx. 5 cm, formed plug-in sleeve on both sides, 2 **KRASO® Covers** as an installation aid | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

Item	KRASO® Type B/SF 5					
Diameter DN	110	125	160	200	250	315
Available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50					
KRASO® Type B/SF 5 - R	78 €	94 €	107 €	137 €	306 €	488 €
KRASO® Type B/SF 5 - G	86 €	98 €	111 €	143 €	311 €	497 €

Scope of supply: KRASO® Type B/SF 5 - R with trowel flange SF/5 on one side, roughened, 2 KRASO® Covers as an installation aid • KRASO® Type B/SF 5 - G with trowel flange SF/5 on one side, tissue coated, 2 KRASO® Covers as an installation aid

Further diameters and wall thicknesses available on request!

Dovetail groove - for the secure gripping of bitumen thick coating and reactive sealings with **KRASO® Type B/SF 5 for KG 2000**



KRASO® Wall Penetration Type B/SF 5 for KG 2000 **LG 1**

for installation in waterproof concrete walls for the connection to KG 2000 pipes on both sides, with trowel flange on one side with dovetail groove for the secure connection of bitumen thick coating and reactive sealings, formed plug-in sleeve on both sides, 2 **KRASO® Covers** as an installation aid | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

Item	KRASO® Type B/SF 5 for KG 2000					
Diameter DN	110	125	160	200	250	315
Available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50					
KRASO® Type B/SF 5 for KG 2000	146 €	162 €	186 €	246 €	499 €	747 €

Scope of supply: KRASO® Type B/SF 5 for KG 2000, 2 KRASO® Covers as an installation aid

Further diameters and wall thicknesses available on request!



suitable for
KRASO® Magnetic Cover

KRASO® Wall Penetration Type DFW 4:
KRASO® 2 Seal on both sides
- MPA-tested up to 3.5 bar!

KRASO® Wall Penetration Type DFW 6:
KRASO® 2 Seal on one side,
central KRASO® 4 Seal
- MPA-tested up to 10 bar!

KRASO® Wall Penetration Type DFW 8:
KRASO® 2 Seal on both sides,
central KRASO® 4 Seal
- MPA-tested up to 10 bar!

NEW BUILDING

KRASO® Seal
3.5 bar

KRASO® Seal
10 bar

Rn
Radon-tight

WU
1+2

KRASO® Wall Penetration Type DFW

Easy and secure sealing in precast walls

- + For the installation in triple wall elements: stop occurring water at the outer shell!
- + IAF-tested: radon-tight!
- + Pipe and pipe-material in accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)
- + Suitable for **KRASO® Magnetic Cover**
- + DafStB waterproof concrete guideline: stress class 1 + 2

KRASO® Wall Penetration Type DFW - triple wall - especially for precast elements **LG 1**

in accordance with DIN EN 1401, for the installation in triple walls, for connection to KG/HT pipes on both sides, with formed plug-in sleeve on both sides, 2 **KRASO® Covers** as an installation aid | **DafStB waterproof concrete guideline: stress class 1 + 2**

Item	KRASO® Type DFW					
Diameter DN	110	125	160	200	250	315 ¹
Available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50					
KRASO® Type DFW 4	67 €	78 €	88 €	118 €	295 €	487 €
KRASO® Type DFW 6	73 €	82 €	93 €	130 €	327 €	539 €
KRASO® Type DFW 8	93 €	107 €	122 €	160 €	409 €	672 €
Surcharge: special dimensions up to 50 cm	21 €				34 €	

¹ Only usable as push-through sleeve, because the plug-in length is not suitable for double-sided usage according to DIN EN 1401-1

Scope of supply: KRASO® Type DFW 4, KRASO® Type DFW 6 or KRASO® Type DFW 8, 2 **KRASO® Covers** as an installation aid

Further diameters and wall thicknesses available on request!



KRASO® Wall Penetration Type DFW for KG 2000 - triple wall - especially for precast elements **LG 1**

in accordance with DIN EN 14758, for the installation in triple walls, for the connection to KG 2000 pipes on both sides, with formed plug-in sleeve on both sides, 2 **KRASO® Covers** as an installation aid | **DafStB waterproof concrete guideline: stress class 1 + 2**

Item	KRASO® Type DFW for KG 2000					
Diameter DN	110	125	160	200	250	315 ^{1,2}
Available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50					
KRASO® Type DFW 4 for KG 2000	95 €	104 €	147 €	216 €	368 €	609 €
KRASO® Type DFW 6 for KG 2000	104 €	116 €	161 €	239 €	409 €	673 €
KRASO® Type DFW 8 for KG 2000	130 €	144 €	202 €	298 €	509 €	841 €
Surcharge: special dimensions up to 50 cm	21 €				34 €	

¹ Only usable as push-through sleeve because the plug-in length according to EN 1401-1 is not suitable for double-sided usage
² For product-technical reasons wall thickness 20 cm with **KRASO® 3 Seal**

Scope of supply: KRASO® Type DFW 4 for KG 2000, KRASO® Type DFW 6 for KG 2000 or KRASO® Type DFW 8 for KG 2000, 2 **KRASO® Covers** as an installation aid

Further diameters and wall thicknesses available on request!



KRASO® Casing Type FE For all diameters!

- + Thick-walled true diameter plastic casing for concreting
- + **KRASO® 4 Seal** – MPA-tested up to 10 bar! Gas- and odour-tight – high-quality in terms of TA-Air!
- + IAF-tested: radon-tight!
- + Certified with the quality seal of the FHRK e. V.
- + Material and processing: weatherproof, impact-resistant plastic, **KRASO® 4 Seal** joined monolithically to the plastic pipe by vulcanization
- + Every diameter and every wall thickness available at short notice!
If necessary, the size can be adapted individually on the construction site!
- + Low weight: easy handling, simple installation, low transport costs!
- + Including installation covers! No pre-treatment required!
- + DafStB waterproof concrete guideline: stress class 1 + 2



KRASO® Casing Type FE/MI
with fixed claw

KRASO® Casing Type FE - true diameter casing • KRASO® Casing Type FE/MI - true diameter casing with inner core **LG 1**

recess for retrofit installation of cables or pipes using a sealing insert (not included in the scope of supply) • plastic - true diameter casing with reinforced inner core, with eyelets, shear key and enclosed fixed claw as an installation aid, ID = InternalDiameter true diameter casing | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® Casing Type FE								KRASO® Casing Type FE/MI							
	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000
InternalDiameter in mm	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000
Available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50															
	40 €	41 €	43 €	47 €	69 €	80 €	86 €	231 €	253 €	272 €	288 €	445 €	589 €	694 €	877 €	927 €
Available standard wall thicknesses in cm	60 · 70 · 80 · 90 · 100															
	55 €	56 €	63 €	67 €	94 €	125 €	157 €	271 €	309 €	344 €	364 €	529 €	709 €	846 €	1,081 €	1,167 €

Scope of supply: KRASO® Casing Type FE, 2 KRASO® Covers as an installation aid • KRASO® Casing Type FE/MI, fixed claw as an installation aid
Further diameters and wall thicknesses available on request!



KRASO® Fibre Cement Casing

Water pressure tight penetration with homogeneous connection to the concrete

- + Casing made of fibre cement as a recess in waterproof concrete walls ("white tank")
- + For concreting: the surrounding external profile ensures a homogeneous and water pressure tight connection to the concrete
- + MPA-tested up to 5 bar!
- + Radon-tight – according to FHRK leaflet MB 101
- + Corresponds to the expansion range ("expansion coefficient") of waterproof concrete
- + Optionally available: **KRASO® Installation/Formwork Aid**
- + Fire protection class A1 according to DIN EN 13501-1
- + Certified with the quality seal of the FHRK e. V.
- + DafStB waterproof concrete guideline: stress class 1 + 2

KRASO® Installation/Formwork aid



for DN 80 to DN 200



for DN 250 to DN 800

KRASO® Fibre Cement Casing **LG 6**

fibre cement casing for the installation in waterproof concrete walls for installation of pipes or cables using sealing inserts (not included in the scope of supply) | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® Fibre Cement Casing													
	80	100	125	150	200	250	300	350	400	450	500	600	700	800
Internal Diameter in mm	80	100	125	150	200	250	300	350	400	450	500	600	700	800
Available standard wall thicknesses in cm														
20	37 €	39 €	45 €	50 €	60 €	78 €	82 €	100 €	138 €	157 €	187 €	213 €	284 €	327 €
24	43 €	45 €	52 €	56 €	69 €	91 €	97 €	117 €	162 €	185 €	219 €	250 €	337 €	388 €
25	44 €	46 €	54 €	58 €	71 €	93 €	99 €	122 €	168 €	192 €	227 €	259 €	350 €	403 €
30	50 €	52 €	58 €	63 €	76 €	97 €	117 €	144 €	199 €	227 €	269 €	306 €	416 €	480 €
35	57 €	59 €	66 €	71 €	86 €	106 €	130 €	166 €	229 €	262 €	310 €	352 €	482 €	556 €
36.5	62 €	65 €	76 €	82 €	93 €	112 €	140 €	173 €	238 €	272 €	322 €	366 €	502 €	579 €
40	64 €	67 €	79 €	86 €	95 €	117 €	145 €	189 €	259 €	296 €	350 €	398 €	548 €	633 €
50	74 €	78 €	93 €	104 €	114 €	121 €	160 €	233 €	320 €	366 €	433 €	491 €	649 €	786 €
60	83 €	86 €	102 €	112 €	121 €	143 €	177 €	277 €	381 €	436 €	515 €	584 €	811 €	939 €
80	103 €	108 €	131 €	147 €	151 €	173 €	199 €	352 €	484 €	549 €	654 €	742 €	1,075 €	1,245 €
100	124 €	130 €	172 €	194 €	203 €	246 €	311 €	440 €	605 €	692 €	817 €	927 €	1,338 €	1,551 €
120	149 €	156 €	206 €	233 €	244 €	295 €	373 €	528 €	726 €	830 €	980 €	1,112 €	1,606 €	1,861 €
optional: KRASO® Installation/Formwork aid	4.10 €	4.90 €	6.10 €	7.50 €	9.80 €	15.70 €	19.40 €	26.20 €	33.40 €	42.30 €	52.60 €	75.80 €	102.40 €	133.80 €

Further diameters and wall thicknesses available on request!



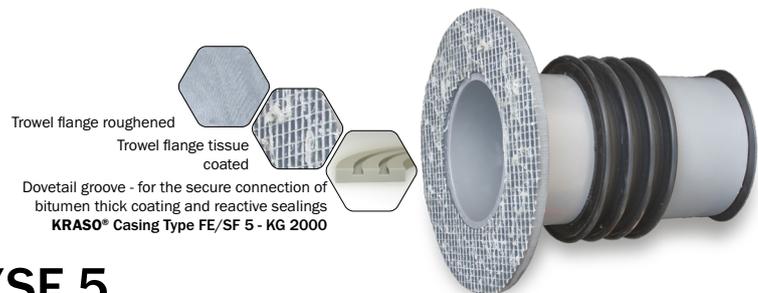
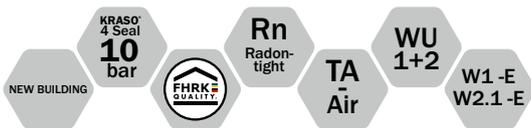
KRASO® Casing Type DFW/FE - triple wall - especially for precast elements **LG 1**

for the installation into triple walls, thick-walled plastic casing true diameter for concreting, as a recess for retrofit installation of cables or pipes using a sealing insert (not included in the scope of supply), with water pressure tight surrounding **KRASO® 2 Seal** on both sides (**KRASO® Type DFW/FE 4**), **KRASO® 2 Seal** on one side and water pressure tight surrounding **KRASO® 4 Seal** in the middle (**KRASO® Type DFW/FE 6**), **KRASO® 2 Seal** on both sides and central water pressure tight surrounding **KRASO® 4 Seal** (**KRASO® Type DFW/FE 8**), 2 **KRASO® Covers** as an installation aid, ID = InternalDiameter true diameter casing | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® Type DFW/FE					
InternalDiameter in mm	100	125	150	200	250	300
Available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50					
KRASO® Type DFW/FE 4	44 €	48 €	53 €	79 €	89 €	95 €
KRASO® Type DFW/FE 6	49 €	53 €	60 €	86 €	101 €	107 €
KRASO® Type DFW/FE 8	62 €	66 €	73 €	109 €	125 €	130 €

Scope of supply: **KRASO® Type DFW/FE 4**, **KRASO® Type DFW/FE 6** or **KRASO® Type DFW/FE 8**, 2 **KRASO® Covers** as an installation aid

Further diameters and wall thicknesses available on request!



KRASO® Casing Type FE/SF 5

Thick-walled plastic casing - true diameter: secure connection of bitumen thick coating/reactive sealings

- + Thick-walled true diameter plastic casing for concreting
- + As a recess for retrofit installation of cables or pipes using a sealing insert
- + Approx. 5 cm surrounding trowel flange on one side for a secure connection of bitumen thick coating and reactive sealings: roughened or tissue coated.
- + **KRASO® 4 Seal** - MPA-tested up to 10 bar! IAF tested: radon-tight!
Gas- and odour-tight - high-quality in terms of TA-Air!
- + Certified with the quality seal of the FHRK e. V.
- + Also available: **KRASO® Casing Type FE/SF 5** made of KG 2000 with trowel flange made of PP with dovetail groove for the secure connection of bitumen thick coating and reactive sealings
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

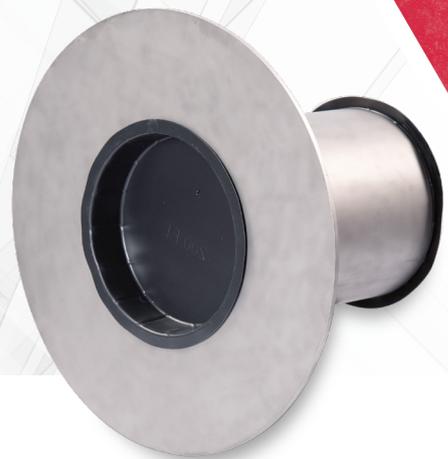
KRASO® Casing Type FE/SF 5 **LG 1**

for concreting, with trowel flange on one side, roughened (**KRASO® Type FE/SF 5 - R**) or tissue coated (**KRASO® Type FE/SF 5 - G**), surrounding approx. 5 cm, 2 **KRASO® Covers** as an installation aid, ID = InternalDiameter true diameter casing | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

Item	KRASO® Type FE/SF 5					
InternalDiameter in mm	100	125	150	200	250	300
Available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50					
KRASO® Type FE/SF 5 - R	64 €	70 €	78 €	107 €	124 €	138 €
KRASO® Type FE/SF 5 - G	68 €	77 €	83 €	111 €	128 €	143 €

Scope of supply: **KRASO® Type FE/SF 5 - R** with trowel flange SF/5 on one side, roughened, 2 **KRASO® Covers** as an installation aid • **KRASO® Type FE/SF 5 - G** with trowel flange SF/5 on one side, tissue coated, 2 **KRASO® Covers** as an installation aid

Further diameters and wall thicknesses available on request!



KRASO® Casings with bonding flange

Simple integration into the sealing of larger areas

- + True diameter casing with surrounding bonding flange according to DIN 18533 for a simple and fast integration into the sealing of larger areas (“black tank”)
- + As a recess for the retrofit installation of cables or pipes using a sealing insert!
- + Available in non-corrosive stainless steel or with thick-walled true diameter plastic casing.
- + DIN 18533 W1 -E and W2.1 -E



KRASO® Casing E/FE/KF - stainless steel/true diameter casing/bonding flange **LG 1**

stainless steel true diameter casing with stainless steel bonding flange, surrounding approx. 12 cm, according to DIN 18533, for concreting, made of non-corrosive stainless steel V2A, for the installation of cables or pipes using a sealing insert (not included in the scope of supply), with 2 **KRASO® Covers** as an installation aid. ID = InternalDiameter true diameter casing | **DIN 18533 W1 -E and W2.1 -E**

Item	KRASO® Casing E/FE/KF						
InternalDiameter in mm	80	100	125	150	200	250	300
Available standard wall thicknesses in cm	20 • 24 • 25 • 30						
Diameter bonding flange	surrounding 120 mm						
KRASO® Casing E/FE/KF	153 €	198 €	218 €	251 €	288 €	386 €	454 €
Surcharge: per each additional 10 cm	22 €	28 €	32 €	36 €	42 €	55 €	64 €

Scope of supply: KRASO® Casing E/FE/KF, 2 KRASO® Covers as an installation aid

Further diameters and wall thicknesses available on request! Also available in V4A at an additional charge!

KRASO® Casing K/FE/KF - electrogalvanised - plastic/true diameter casing/bonding flange **LG 1**

thick-walled true diameter plastic casing with electrogalvanised bonding flange, surrounding approx. 12 cm, according to DIN 18533, for concreting, for the installation of cables or pipes using a sealing insert (not included in the scope of supply), 2 **KRASO® Covers** as an installation aid ID = InternalDiameter true diameter casing | **DIN 18533 W1 -E and W2.1 -E**



Item	KRASO® Casing K/FE/KF - electrogalvanised						
InternalDiameter in mm	80	100	125	150	200	250	300
Available standard wall thicknesses in cm	20 • 24 • 25 • 30						
Diameter bonding flange	surrounding 120 mm						
KRASO® Casing K/FE/KF - electrogalvanised -	115 €	148 €	164 €	189 €	216 €	290 €	345 €
Surcharge: per each additional 10 cm	1.30 €	1.40 €	2.10 €	2.30 €	4.70 €	8.20 €	14.10 €

Scope of supply: KRASO® Casing K/FE/KF - electrogalvanised -, 2 KRASO® Covers as an installation aid

Further diameters and wall thicknesses available on request!



KRASO® Casing Type E/FE - stainless steel/true diameter casing **LG 1**

stainless steel casing for concreting, as a recess for retrofit installation of pipes and cables using a sealing insert (not included in the scope of supply), made of non-corrosive stainless steel V2A, with water pressure tight and gas- and odour-tight, surrounding **KRASO® 4 Seal** and 2 **KRASO® Covers** as an installation aid, ID = InternalDiameter true diameter casing | **DafStB waterproof concrete guideline: stress class 1 + 2**

Item	KRASO® Type E/FE						
InternalDiameter in mm	80	100	125	150	200	250	300
Available standard wall thicknesses in cm	20 • 24 • 25 • 30						
KRASO® Type E/FE	146 €	189 €	208 €	240 €	274 €	367 €	437 €
Surcharge: per each additional 10 cm	23 €	28 €	32 €	37 €	42 €	56 €	64 €

Scope of supply: KRASO® Casing Type E/FE, 2 KRASO® Covers as an installation aid

Further diameters and wall thicknesses available on request! Also available in V4A at an additional charge!



VA - tubular sleeve **LG 1**

stainless steel tubular sleeve for concreting, as non-water pressure tight recess for retrofit installation of pipes and cables using a sealing insert (not included in the scope of supply), made of non-corrosive stainless steel V2A, ID = InternalDiameter true diameter

Item	VA - tubular sleeve						
InternalDiameter in mm	80	100	125	150	200	250	300
Available standard wall thicknesses in cm	20 • 24 • 25 • 30						
VA - tubular sleeve	61 €	78 €	88 €	99 €	114 €	151 €	180 €
Surcharge: per each additional 10 cm	23 €	28 €	32 €	37 €	42 €	56 €	64 €

Scope of supply: VA - tubular sleeve made of non-corrosive stainless steel V2A with 2 KRASO® Covers as an installation aid

Further diameters and wall thicknesses available on request! Also available in V4A at an additional charge!



KRASO® Casing Type E/FE/M - stainless steel / true diameter casing / middle flange **LG 1**

stainless steel casing for concreting with middle flange, surrounding approx. 10 cm, as a recess for retrofit installation of pipes and cables using a sealing insert (not included in the scope of supply), made of non-corrosive stainless steel V2A, ID = InternalDiameter true diameter casing

Item	KRASO® Type E/FE/M						
InternalDiameter in mm	80	100	125	150	200	250	300
Available standard wall thicknesses in cm	20 • 24 • 25 • 30						
KRASO® Type E/FE/M	146 €	189 €	208 €	240 €	274 €	367 €	437 €
Surcharge: per each additional 10 cm	23 €	28 €	32 €	37 €	42 €	56 €	64 €

Scope of supply: KRASO® Casing Type E/FE/M, 2 KRASO® Covers as an installation aid

Further diameters and wall thicknesses available on request! Also available in V4A at an additional charge!



KRASO® Slip-on Sleeve **LG 1**

in accordance with DIN EN 1401, for installation in waterproof concrete walls for KG/HT pipes to be pushed through, with water pressure tight surrounding **KRASO® 4 Seal** | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® Slip-on Sleeve							
Diameter DN	110	125	160	200	250	315	400	500
KRASO® Slip-on Sleeve	40 €	46 €	53 €	67 €	142 €	215 €	306 €	573 €

Also available as double sleeve with internal stop on request!

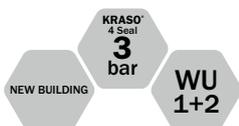


KRASO® Slip-on Sleeve for KG 2000 **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls for KG 2000 pipes to be pushed through, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal** | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® Slip-on Sleeve for KG 2000							
Diameter DN	110	125	160	200	250	315	400	500
KRASO® Slip-on Sleeve for KG 2000	52 €	60 €	78 €	129 €	209 €	269 €	365 €	691 €

Also available as double sleeve with internal stop on request!

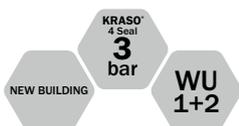


KRASO® 15° | 30° | 45° Bend **LG 1**

in accordance with DIN EN 1401, for installation in waterproof concrete walls for the connection to KG/HT pipes, with water pressure tight surrounding **KRASO® 4 Seal** and formed plug-in sleeve on one side | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® 15° 30° 45° Bend							
Diameter DN	110 ¹	125 ¹	160 ¹	200 ¹	250	315	400	500
KRASO® 15° 30° 45° Bend	29 €	34 €	39 €	73 €	124 €	192 €	330 €	721 €

¹ For technical production reasons partly **KRASO® 3 Seal**



KRASO® 15° | 30° | 45° Bend for KG 2000 **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls for the connection to KG 2000 pipes, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal** and formed plug-in sleeve on one side | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® 15° 30° 45° Bend for KG 2000							
Diameter DN	110 ¹	125 ¹	160 ¹	200 ¹	250	315 ²	400 ²	500
KRASO® 15° 30° 45° Bend for KG 2000	44 €	55 €	75 €	111 €	255 €	409 €	589 €	1,148 €

¹ For technical production reasons partly **KRASO® 3 Seal**

² Not available as 30° Bend



KRASO® Tie Point DWS -System
Check the installation video
(Just scan the QR code!)



10 bar
NEW BUILDING

F 180
Fireproof

WU 1+2

KRASO® Tie Point DWS - System

Simple and quick use,
water pressure tight up to 10 bar!

- + Water pressure tight tie point as spacer for the formwork of waterproof concrete walls
- + Delivery ready-to-use according to wall thickness - no assembly necessary on the construction site!
- + Simple installation - no time-consuming adhesion of blanking plugs and expensive reworking!
- + 10 bar water pressure tightness internally and externally due to vulcanised locking disc, sealing and blanking plugs for simple locking.
- + Fireproof according to F 180!
- + DafStB waterproof concrete guideline: stress class 1 + 2

KRASO® DWS - System - water pressure tight tie point **LG 1**

| DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® DWS - System											
Wall thicknesses in cm	15	17.5	20	24	25	30	35	36.5	40	45	50	60
KRASO® DWS - System	4.30 €	4.40 €	4.40 €	4.50 €	4.50 €	4.60 €	4.70 €	4.70 €	4.80 €	4.90 €	5.00 €	5.30 €

Packing unit:
50 pcs. - red KRASO® Distance Pipe 22/26 with KRASO® Locking Disc and assembled caps
50 pcs. - KRASO® Sealing Plugs
100 pcs. - blanking plugs

Any wall thickness available at short term! Also available for system tie point 26/30!

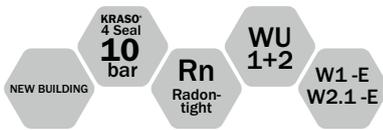
KRASO® DWS - Accessories **LG 1**



Item	Insertion Tool	Blanking Plugs	KRASO® Sealing Plugs
Packing Unit	1 pc.	100 pcs.	50 pcs.
KRASO® DWS - Accessories	12 €	10 €	9 €



KRASO® Floor Drain
Check the installation video
(Just scan the QR code!)



KRASO® Drains for interior and exterior use Inside and outside – tight and dry

- + For interior areas, basements, yards and parking levels:
KRASO® Drains for a reliable and water pressure tight drainage of pressing water!
- + IAF-tested: radon-tight!
- + Walkable and fit for traffic, frost proof and odour-tight, backwater safe and thermally insulated: various versions for different needs!
- + High-quality components for a secure installation and use: solid wall material with thermally welded **KRASO® 4 Seal**, plastic or stainless steel grates
- + Additional accessories available as completion for individual needs
- + DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E

PIPE PENETRATIONS

KRASO® Floor Drains - according to DIN EN 1253



KRASO®
Floor Drain



KRASO®
Floor Drain
with foil flange



KRASO®
Floor Drain for KG 2000



KRASO®
Floor Drain
- thermally insulated -

KRASO® Floor Drains - frost proof/backwater safe



KRASO®
Floor Drain Type FS
frost proof



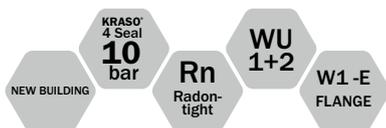
KRASO®
Floor Drain Type FS for KG 2000
with foil flange
frost proof



KRASO®
Floor Drain Type FS – RS
frost proof - backwater safe -



KRASO®
Floor Drain Type FS - RS
with foil flange
frost proof - backwater safe -

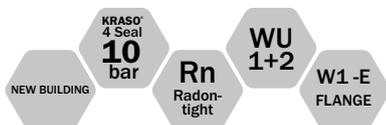


KRASO® Floor Drain **LG 1**

according to DIN EN 1253 – for the installation in interior areas without traffic, for the drainage of grey water, drainage capacity: 1.7 l/s, with water pressure tight surrounding **KRASO® 4 Seal**. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | **DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1-E**

Item	KRASO® Floor Drain • KRASO® Floor Drain with foil flange
Drainage capacity	1.7 l/s
Height	drain approx. 110 mm
Insert frame	steplessly rotatable and height-adjustable from 30 - 70 mm
Plastic grate (standard)	class K3 (withstands loads up to 300 kg), 15 x 15 cm
Connection	KG/HT pipes either DN 50 or DN 110 vertical
KRASO® Floor Drain	93 €
KRASO® Floor Drain with foil flange	136 €
KRASO® PU 50	22 €

Scope of supply: **KRASO® Floor Drain**, plastic grate class K3, odour stopper, sludge trap filter, building period protective cover • **KRASO® Floor Drain with foil flange**, plastic grate class K3, odour stopper, sludge trap filter, building period protective cover



KRASO® Floor Drain for KG 2000 **LG 1**

according to DIN EN 1253 – for the installation in interior areas without traffic, for the drainage of grey water, drainage capacity: 1.7 l/s, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | **DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1-E**

Item	KRASO® Floor Drain for KG 2000 • KRASO® Floor Drain for KG 2000 with foil flange
Drainage capacity	1.7 l/s
Height	drain approx. 110 mm
Insert frame	steplessly rotatable and height-adjustable from 30 - 70 mm
Plastic grate	class K3 (withstands loads up to 300 kg), 15 x 15 cm
Connection	KG 2000/HT pipes either DN 50 or DN 110 vertical
KRASO® Floor Drain for KG 2000	118 €
KRASO® Floor Drain for KG 2000 with foil flange	159 €
KRASO® PU 50	22 €

Scope of supply: **KRASO® Floor Drain for KG 2000**, plastic grate class K3, odour stopper, sludge trap filter, building period protective cover • **KRASO® Floor Drain for KG 2000 with foil flange**, plastic grate class K3, odour stopper, sludge trap filter, building period protective cover

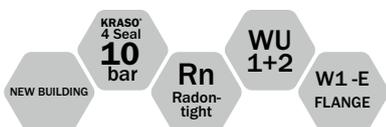


KRASO® Floor Drain - thermally insulated - **LG 1**

according to DIN EN 1253 – for the installation in interior areas without traffic, for the drainage of grey water, drainage capacity: 1.7 l/s, with water pressure tight surrounding thermally welded **KRASO® 4 Seal** | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® Floor Drain - thermally insulated -
Drainage capacity	1.7 l/s
Height	drain approx. 110 mm
Insert frame	steplessly rotatable and height-adjustable from 30 - 70 mm
Stainless steel grate	class K3 (withstands loads up to 300 kg), 15 x 15 cm
Connection	either KG/HT - pipes or KG 2000 pipes DN 50 or DN 110 vertical
KRASO® Floor Drain - thermally insulated -	329 €

Scope of supply: KRASO® Floor Drain - thermally insulated -, plastic grate class K3, with odour stopper and sludge trap filter, building period protective cover

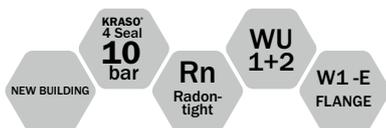


KRASO® Floor Drain Type FS - frost proof **LG 1**

for the installation in exterior areas without traffic, for the drainage of grey water, drainage capacity: 1.67 l/s, with water pressure tight surrounding **KRASO® 4 Seal**. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1-E

Item	KRASO® Type FS • KRASO® Type FS with foil flange
Drainage capacity	1.67 l/s
Height	drain approx. 110 mm
Insert frame	steplessly rotatable and height-adjustable from 30 - 70 mm
Stainless steel grate	class K3 (withstands loads up to 300 kg), 15 x 15 cm
Connection	KG/HT - pipes DN 110 vertical
KRASO® Type FS	194 €
KRASO® Type FS with foil flange	238 €
KRASO® PU 50	22 €

Scope of supply: KRASO® Floor Drain Type FS, screwable stainless steel grate class K3, frost proof odour barrier, sludge trap filter and building period protective cover • KRASO® Floor Drain Type FS with foil flange, screwable stainless steel grate class K3, frost proof odour barrier, sludge trap filter and building period protective cover



KRASO® Floor Drain Type FS for KG 2000 - frost proof **LG1**

for the installation in exterior areas without traffic, for the drainage of grey water, drainage capacity: 1.67 l/s, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1-E

Item	KRASO® Type FS for KG 2000 • KRASO® Type FS for KG 2000 with foil flange
Drainage capacity	1.67 l/s
Height	drain approx. 110 mm
Insert frame	steplessly rotatable and height-adjustable from 30 - 70 mm
Stainless steel grate	class K3 (withstands loads up to 300 kg), 15 x 15 cm
Connection	KG 2000/HT pipes DN 110 vertical
KRASO® Type FS for KG 2000	217 €
KRASO® Type FS for KG 2000 with foil flange	262 €
KRASO® PU 50	22 €

Scope of supply: **KRASO® Floor Drain Type FS for KG 2000**, screwable stainless steel grate class K3, frost proof odour barrier, sludge trap filter and building period protective cover • **KRASO® Floor Drain Type FS for KG 2000 with foil flange**, screwable stainless steel grate class K3, frost proof odour barrier, sludge trap filter and building period protective cover



KRASO® Floor Drain - Accessories **LG1**



Item	Insert frame extension	Insert frame extension with foil flange	Insert frame extension - fit for traffic up to 1.5 t
Item description	height ≤ 140 mm	height ≤ 140 mm foil flange (d = approx. 50 cm)	steplessly height-adjustable from 15 - 120 mm, all visible parts made of stainless steel, stainless steel grate massive, screwed, 150 x 150 mm, fit for traffic up to 1.5 t, L 15
KRASO® Floor Drain - Accessories	22 €	64 €	188 €



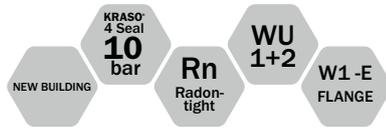
Item	Insert frame	Stainless steel grate	Stainless steel grate - screwable -
Item description	all visible parts made of stainless steel incl. stainless steel grate	class K3	incl. insert frame with threaded sleeves
KRASO® Floor Drain - Accessories	165 €	38 €	66 €



Item	Raising element for thin-bed mortar	Spare parts kit	Floor drain insert frame with building period protective cover
Item description	screed structure height from 25 - 130 mm	including: backflow seal, odour stopper, sludge trap filter insert frame and plastic grate	for industry floors treated with a power trowel
KRASO® Floor Drain - Accessories	119 €	51 €	112 €

KRASO® Floor Drain Type FS - RS
with screwable stainless steel grate class K3,
frost proof backwater double stopper,
2 automatically closing caps, one of them as
emergency valve - closable by one hand, sludge trap
filter and building period protective cover

KRASO® Floor Drain Type FS - RS
with foil flange



KRASO® Floor Drain Type FS - RS

Frost proof - backwater safe

- + For installation in outdoor areas for areas without traffic, for the drainage of grey water, drainage capacity: 0.4 l/s.
- + Winterproof due to frost proof backwater double stopper
- + PP-MD pipe (DIN 14758): high impact strength and durability
- + Screwable stainless steel grate: class K3 up to 300 kg
- + DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E



PIPE PENETRATIONS

KRASO® Floor Drain Type FS - RS - frost proof - backwater safe **LG 1**

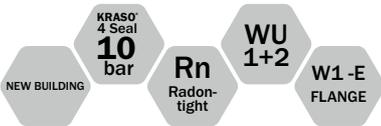
for the installation in exterior areas without traffic. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E

Item	KRASO® Type FS - RS • KRASO® Type FS - RS with foil flange
Drainage capacity	0.4 l/s
Height	drain approx. 195 mm
Insert frame	steplessly rotatable and height-adjustable from 30 - 70 mm
Stainless steel grate	class K3 (withstands loads up to 300 kg), 15 x 15 cm
Connection	KG/HT - pipes either DN 50 or DN 110 vertical
KRASO® Type FS - RS	353 €
KRASO® Type FS - RS with foil flange	391 €
KRASO® PU 50	22 €

Scope of supply: **KRASO® Floor Drain Type FS - RS**, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, screwable stainless steel grate class K3, frost proof backwater double stopper, with 2 automatically closing caps, one of them as emergency valve - closable by one hand, sludge trap filter and building period protective cover • **KRASO® Floor Drain Type FS - RS with foil flange**, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, screwable stainless steel grate class K3, frost proof backwater double stopper, with 2 automatically closing caps, one of them as emergency valve - closable by one hand, sludge trap filter and building period protective cover



KRASO® Basement Drain with foil flange



KRASO® Basement Drain

For a dry basement

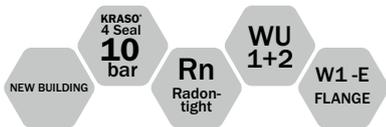
- + KRASO® Basement Drain with integrated, removable backwater and odour stopper!
- + For the connection of up to 3 intake pipes!
- + Drainage capacity: 1.8 l per second!
- + With height-adjustable and rotatable insert frame from 30 to 60 mm
- + Either with plastic or stainless steel grate
- + With water pressure tight surrounding thermally welded **KRASO® 4 Seal**: water pressure tight up to 10 bar!
- + Also available for KG 2000: made of polypropylene (PP), mineral-filled, smooth walls, long-lasting
- + DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1-E

KRASO® Basement Drain **LG1**

for the installation in areas without traffic and for the connection of up to 3 intake pipes. Also available with **KRASO® Foil Flange**, oil- and bitumen-resistant (d = approx. 50 cm). For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1-E

Item	KRASO® Basement Drain with plastic grate	KRASO® Basement Drain with stainless steel grate
Drainage capacity	1.8 l/s	
Height	drain approx. 250 mm	
Insert frame	steplessly rotatable and height-adjustable from 30 - 60 mm	
Slot grate	class K3, 20 x 20 cm, plastic (black)	class K3, 20 x 20 cm, stainless steel
Connection	3 intake pipes: 2 x DN 50, 1 x DN 70, either for KG, HT or KG 2000 pipes	
KRASO® Basement Drain	450 €	570 €
KRASO® Basement Drain with foil flange	585 €	703 €
KRASO® PU 50	22 €	

Scope of supply: KRASO® Basement Drain with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame (telescopically height-adjustable from 30 to 60 mm and rotatable), two intakes DN 50, one intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with slot grate 20 x 20 cm made of black plastic or stainless steel, class K3 • **KRASO® Basement Drain with foil flange** with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame (telescopically height-adjustable from 30 to 60 mm and rotatable), two intakes DN 50, one intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with slot grate 20 x 20 cm made of black plastic or stainless steel, class K3 300 kg



KRASO® Basement Drain for KG 2000 **LG 1**

for the installation in areas without traffic and for the connection of up to 3 intake pipes, for the drainage of grey water, drainage capacity: 1.8 l/s, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, lateral **KRASO® Drainage Bows DN 110** with **KRASO® 3 Seal**. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E

Item	KRASO® Basement Drain for KG 2000 with plastic grate	KRASO® Basement Drain for KG 2000 with stainless steel grate
Drainage capacity	1.8 l/s	
Height	drain approx. 250 mm	
Insert frame	steplessly rotatable and height-adjustable from 30 - 60 mm	
Slot grate	class K3, 20 x 20 cm, plastic (black)	class K3, 20 x 20 cm, stainless steel
Connection	3 intake pipes: 2 x DN 50, 1 x DN 70, either for KG, HT or KG 2000 pipes	
KRASO® Basement Drain for KG 2000	563 €	713 €
KRASO® Basement Drain for KG 2000 with foil flange	698 €	816 €
KRASO® PU 50	22 €	

Scope of supply: KRASO® Basement Drain for KG 2000 with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame (telescopically height-adjustable from 30 to 60 mm and rotatable), two intakes DN 50, one intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with slot grate 20 x 20 cm made of black plastic or stainless steel, class K3 •

KRASO® Basement Drain for KG 2000 with foil flange with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame (telescopically height-adjustable from 30 to 60 mm and rotatable), two intakes DN 50, one intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with slot grate 20 x 20 cm made of black plastic or stainless steel, class K3 300 gw



KRASO® Drains - Accessories **LG 1**

Item	Insert frame extension	Insert frame extension
Item description	for KRASO® Basement Drain , KRASO® Yard Drain Type 12.5 , height-adjustable from 46 - 130 mm, also suitable for KRASO® Yard/Parking Level Drain Type 1.5 with stainless steel grate	for KRASO® Yard/Parking Level Drain Type 1.5¹ , height-adjustable from min. 25 - 130 mm
KRASO® Drains - Accessories	31 €	103 €

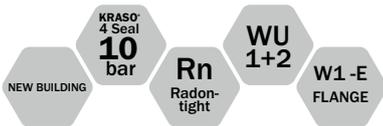
¹ Not suitable for **KRASO® Yard/Parking Level Drain Type 1.5** with stainless steel grate



KRASO® PU 50 **LG 1**

high-quality, permanently elastic and strong PU-sealant, also usable on moist surfaces, recommended for all products with **KRASO® Foil Flange**, colour black, 290 ml - cartridge for cartridge press

Item	PU sealant
KRASO® PU 50	22 €



KRASO® Yard/Parking Level Drain

The high-performance drain for e.g. underground car parks

- + KRASO® Yard/Parking Level Drain with 4.3 l/s drainage capacity according to DIN EN 1253
- + With frost proof odour barrier and removable sand trap basket
- + Load class A to 1.5 t or load class B up to 12.5 t
- + Connection either for KG, HT or KG 2000 pipes DN 110
- + With water pressure tight surrounding, thermally welded **KRASO® 4 Seal**: water pressure tight up to 10 bar!
- + DafStB waterproof concrete guideline: stress class 1 + 2, with flange DIN 18533 W1 -E

KRASO® Yard/Parking Level Drain **LG 1**

for the installation in areas with traffic

Item	KRASO® Yard/Parking Level Drain Type 1.5	KRASO® Yard/Parking Level Drain Type 12.5
Drainage capacity	4.3 l/s	
Load class	load class A 15	load class B to 12.5 t
Base plate thickness	min. 20 cm	min. 15 or 20 cm
Connection	either for KG, HT or KG 2000 pipes DN 110	
KRASO® Yard/Parking Level Drain	295 €	534 €
KRASO® Yard/Parking Level Drain with trowel flange with dovetail groove	492 €	-
KRASO® Yard/Parking Level Drain with stainless steel grate	464 €	-
KRASO® Yard/Parking Level Drain with stainless steel grate with foil flange	660 €	-
KRASO® Yard/Parking Level Drain with stainless steel grating	-	740 €

Scope of supply: KRASO® Yard/Parking Level Drain Type 1.5 with frost proof odour barrier, removable sand trap basket, with slot grate approx. 24 x 24 cm, cast iron, load class A to 1.5 t, vertical discharge • KRASO® Yard/Parking Level Drain Type 12.5 with frost proof odour barrier, removable sand trap basket, with support frame made of eco-cast, 26 x 26 cm, with slot grate, load class B up to 12.5 t, vertical discharge



KRASO® Type LES

Light shaft drainage system for concrete shafts

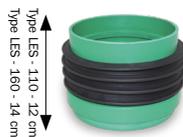
- + Flexible drainage system - for precast elements and in-situ concrete
- + Various components for individual demands
- + Also available for retrofit installation
- + DafStB waterproof concrete guideline: stress class 1 + 2



KRASO® Type LES DN 160 - Basis for precast elements
with water pressure tight surrounding, thermally welded **KRASO® 2 Seal**.
For later installation of LES - Vario - connection, LES - leaf sieve and LES - odour barrier



LES DN 160 - odour barrier
removable, frost proof



KRASO® Type LES DN 160 - Basis for in-situ concrete
with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**.
For later installation of LES - vario - connection, LES - leaf sieve and LES - odour barrier



LES DN 160 - backwater double stopper
as emergency valve/closable by one hand, easily accessible and easy to maintain. Can be retrofitted by LES - vario - connection. Drainage capacity: 0.4 l/s. Backwater tight up to 5 m water column



KRASO® Type LES DN 160 - Vario Connection
connection either to drainage DN 50 / DN 110 or to drainage DN 110. Connection possible to LES - backwater double stopper



LES DN 110 - backwater stopper



LES DN 110 and DN 160 - leaf sieve

KRASO® Type LES - light shaft drainage system **LG1**

for concrete shafts | DafStB waterproof concrete guideline: stress class 1 + 2

Item	KRASO® Type LES - 110	KRASO® Type LES - 160
KRASO® Type LES - Basis for precast elements	49 €	55 €
KRASO® Type LES - Basis for in-situ concrete	69 €	82 €
KRASO® Type LES - Vario - connection	47 €	55 €
LES - odour barrier	36 €	36 €
LES - backwater stopper	131 €	-
LES - backwater double stopper	-	181 €
LES - leaf sieve	37 €	38 €

Also available for retrofit installation!



The alternative
to a fixed-loose flange!



NEW BUILDING
REHABILITATION

**1.5
bar**

W1 -E
W2.1 -E

KRASO® Flange Pipes

Simple and effective integration into bituminous sealing

- + For new buildings and rehabilitation - according to DIN 18533 W1 -E and W2.1 -E
- + Simple and effective integration into bituminous sealing ("black tank"): bitumen thick coating and reactive sealing, sheeting, concrete and brick walls
- + Water pressure tight up to 1.5 bar - MPA-tested!
- + Made of dimensionally and pressure stable solid wall material with low abrasion! Installation even at lower temperatures
- + Pipe and pipe material in accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)



KRASO® PU 50:
high-quality, permanently elastic and strong PU-sealant! (290 ml - cartridge).
Our recommendation for all products with **KRASO® Foil Flange!**



KRASO® Flange Pipe KG



KRASO® Flange Pipe for KG 2000



KRASO® Flange Pipe FE



KRASO® Type KMB



KRASO® Type KMB for KG 2000



KRASO® Type ÜSF

PIPE PENETRATIONS



KRASO® Flange Pipe KG **LG1**

for retrofit installation, for the connection to KG/HT pipes, made of high-quality, dimensionally and pressure stable solid wall material, with formed plug-in sleeve on one side and **KRASO® Foil Flange**, oil- and bitumen resistant, surrounding approx. 15 cm. oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DIN 18533 W1 -E and W2.1 -E

Item	KRASO® Flange Pipe KG							
Diameter DN	110	125	160	200	250	315	400	500
Delivery length in cm	50							
KRASO® Flange Pipe KG	47 €	49 €	62 €	78 €	154 €	230 €	293 €	450 €
KRASO® PU 50	22 €							

Further diameters and lengths from 50 cm available on request!



KRASO® Flange Pipe for KG 2000 **LG1**

for retrofit installation, for the connection to KG 2000 pipes, made of high-quality, dimensionally and pressure stable solid wall material, with formed plug-in sleeve on one side and **KRASO® Foil Flange**, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DIN 18533 W1 -E and W2.1 -E

Item	KRASO® Flange Pipe for KG 2000							
Diameter DN	110	125	160	200	250	315	400	500
Delivery length in cm	50							
KRASO® Flange Pipe for KG 2000	62 €	79 €	87 €	122 €	279 €	389 €	499 €	652 €
KRASO® PU 50	22 €							

Further diameters and lengths from 50 cm available on request!



KRASO® Flange Pipe FE **LG1**

thick-walled true diameter plastic casing for retrofit installation of pipes and cables using a sealing insert (not included in the scope of supply), with **KRASO® Foil Flange**, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. ID = InternalDiameter flange pipe FE | DIN 18533 W1 -E and W2.1 -E

Item	KRASO® Flange Pipe FE					
InternalDiameter ID	100	125	150	200	250	300
External diameter in mm	110	140	160	210	263	314
Delivery length in cm	50					
KRASO® Flange Pipe FE	45 €	49 €	56 €	80 €	113 €	134 €
KRASO® PU 50	22 €					

Further diameters and lengths from 50 cm available on request!



KRASO® Type KMB **LG 1**

plug-in flange, for retrofit sealing of KG/HT pipes using **KRASO® Foil Flange** with bitumen thick coating and reactive sealings, with formed plug-in sleeve on one side and **KRASO® Foil Flange**, oil- and bitumen resistant, surrounding approx. 6 cm. For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DIN 18533 W1-E and W2.1-E

Item	KRASO® Type KMB			
Diameter DN	110	125	160	200
Plug-in length in cm	7	7.5	8	9
KRASO® Type KMB	49 €	52 €	63 €	80 €
KRASO® PU 50	22 €			

Further diameters available on request!



KRASO® Type KMB for KG 2000 **LG 1**

plug-in flange, for retrofit sealing of KG 2000 pipes using **KRASO® Foil Flange** with bitumen thick coating and reactive sealings, with formed plug-in sleeve on one side and **KRASO® Foil Flange**, oil- and bitumen resistant, surrounding approx. 6 cm. For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DIN 18533 W1-E and W2.1-E

Item	KRASO® Type KMB for KG 2000			
Diameter DN	110	125	160	200
Plug-in length in cm	7	7.5	8	9
KRASO® Type KMB for KG 2000	60 €	70 €	85 €	122 €
KRASO® PU 50	22 €			

Further diameters available on request!



KRASO® Type ÜSF - slip-on flange **LG 1**

for retrofit sealing of installed KG, HT or KG 2000 pipes, using **KRASO® Foil Flange** with bitumen sealing (e.g. KMB), with foil flange, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DIN 18533 W1-E and W2.1-E

Item	KRASO® Type ÜSF					
Diameter DN	110	125	160	200	250	315
KRASO® Type ÜSF	87 €	95 €	113 €	208 €	307 €	411 €
KRASO® PU 50	22 €					

Further diameters available on request!



KRASO® PU 50 **LG 1**

high-quality, permanently elastic and strong PU-sealant, also usable on moist surfaces, recommended for all products with **KRASO® Foil Flange**, colour black, 290 ml cartridge for cartridge presses

Item	PU sealant
KRASO® PU 50	22 €