

KERA

Vitrified Clay Pipes & Fittings

OPEN-CUT
CONSTRUCTION

KERA.BASE
KERA.PRO

**STEINZEUG
KERAMO** 



Ecological Economical Proven

Future-oriented wastewater solutions from Steinzeug-Keramo

Steinzeug-Keramo, a Wienerberger Group company, is a solutions and systems provider for the sustainable water and wastewater industry.

As a medium-sized company with many years of experience, we prove ourselves to our partners with fully developed expertise in the production, installation and operation of water and waste-water systems. At the same time, we attach great value to the high quality and sustainability of our products. Our core competency is in the production of future-proof pipe systems that are fully compliant with the highest technical, economic and ecological requirements.

We produce pipes, manholes, fittings and accessories in the highest quality, and offer entire system solutions – for safe, reliable and economical operation spanning generations.

At the same time, the range of products we offer is geared towards efficient construction site management and fulfills all the requirements of modern sewer systems. What's more, the use of natural raw materials and the application of the most modern process engineering results in extremely durable products that are fully recyclable and have a service life exceeding 150 years.

KERA

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KERA Vitrified Clay

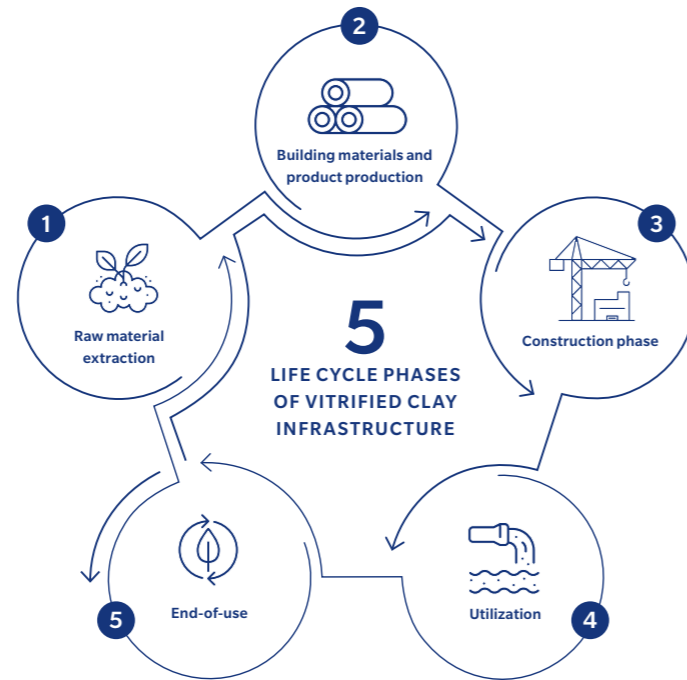
A sustainable choice for the future.

Vitrified clay pipe systems are an environmentally conscious and sustainable choice for sewer and wastewater applications, excelling in their extreme longevity and durability.

Why clay?

Vitrified clay pipes and fittings are ecologically favourable as they do not undergo chemical or physical ageing and therefore retain their quality throughout their entire service life. Since vitrified clay pipes and fittings don't contain any pollutants or harmful substances, they don't affect the surrounding ecosystem, making them an environmentally friendly choice. Their long service life with low maintenance and servicing requirements also makes them an economical solution in the long term.

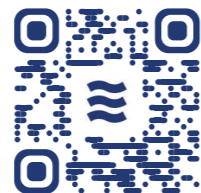
Clay pipes and fittings are made by only natural, inexhaustive resources. The amount of raw resources is limited as only three materials are used in the manufacturing process of vitrified clay pipes and fittings: clay, chamotte & water.



- 1 The extraction of clay from nature
- 2 The manufacture of vitified clay pipes and fittings
- 3 The installation of the clay pipes and fittings in the ground
- 4 The operation of the pipes and fittings for wastewater disposal
- 5 Several end-of-use scenarios are possible

Clay, the natural raw material

Clay is a widely abundant and a practically inexhaustible resource because it is based on silicates: silicon is the second most abundant component present in the earth's crust.



If you have any questions regarding sustainability, we are happy to help you. Please contact us.

Certificates

We are proud of our continuous certification and adherence to all standards and regulations across Europe.



ISO 9001:2015
Quality Management System
ISO 50001:2018
Energy Management System

Design, manufacturing and supply of vitrified clay pipes, fittings and their joints, vitrified clay manholes including design and supply of compatible accessories



EN 295 Parts 1-7
Vitrified Clay Pipe Systems for Drains and Sewers
ZP WN 295

The European Standard EN 295 specifies requirements for vitrified clay pipes, fittings and flexible joints for buried drain and sewer systems for the conveyance of wastewater (including domestic wastewater, surface water and rainwater) under gravity and periodic hydraulic surcharge or under continuous low head of pressure.

ZP WN 295
The ZP WN 295 is a certification scheme for glazed vitrified clay pipes, fittings and their accessories for drains and sewers. This certification scheme is the basis for the voluntary third party control by MPA.



The **BENOR mark** assures that our products comply with well-defined quality standards which are based upon the **EN 295** and the **ZP WN 295**.

The voluntary third party control is carried out by COPRO.



The **Q+ mark** assures that our products comply with well-defined quality standards which are based upon the **EN 295**, **ZP WN 295** and **prR 592 012-3:2015**. The voluntary third party control is carried out by MPA.



BRL 52230
Quality and Environmental Compatibility of Building Materials
This assessment guideline addresses the environmental aspects of prefabricated ceramic products.



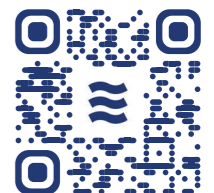
Certification System 3 - ISO/IEC 17067
Environmental Labels and Declarations - Self-Declared Environmental Claims (Type II Environmental Labeling)
This standard provides guidelines and requirements for self-declared environmental claims, also known as Type II environmental labels. We utilize this framework to communicate the environmental impact of our products and services transparently and reliably.



CE Label
The CE mark indicates that our products have been assessed and meet all EU-wide requirements for safety, health, and environmental protection. This mark is mandatory for all products manufactured globally that are marketed in the EU.



The **NF mark** assures that our products comply with well-defined quality standards which are based upon the **EN 295** and the **NF 121**. The voluntary third party control is carried out by CSTB.



More certificate and regulations info is available

Open-Cut Construction



- > Development of new housing areas
- > House connections
- > Renewal of existing systems

A Central Technique in Sewer Construction

In open-cut construction method, a key technique in sewer building, the ground is first excavated where the sewer pipeline is planned. This creates a trench, with side walls secured by sheeting to prevent soil collapse. A stable bedding, typically made of sand or gravel, is then prepared for the optimal placement of the sewer system. Using an excavator, the pipes are carefully lowered from above and positioned on

the bedding. Once the sewer has been successfully laid, the trench is backfilled in layers to ensure the stability of the newly installed sewer. The open-cut construction method is used in various applications, such as new builds, house connections and renewal of existing systems. Wienerberger Infra offers a wide range of solutions for open-cut construction, providing the right choice for every need.



KERA.BASE KERA.PRO

The Green Clay Pipe System

In a world increasingly seeking eco-friendly and sustainable solutions, our vitrified clay pipe systems offer a reliable answer. Our product range is at the heart of a green revolution in infrastructure. KERA.BASE & KERA.PRO present solutions that are both efficient and environmentally friendly.

Thanks to their design and manufacturing process, our vitrified clay pipe systems have an exceptionally long lifespan, attesting to their high quality! This durability helps reduce waste and the need for constant replacement. The resistance of vitrified clay pipe systems to external influences, whether from physical stress or aggressive chemicals, makes them a dependable choice for many infrastructure projects.

The real highlight of these products, however, is their sustainability. In an era where recycling and resource efficiency are essential, our vitrified clay pipe systems offer an excellent solution. They are 100% recyclable, re-entering the production cycle as chamotte, a valuable raw material, closing the sustainability loop and demonstrating how waste can become a valuable component of new products.

Equally noteworthy is the absence of additional chemicals in the manufacturing process, ensuring minimal environmental impact. With these sustainable practices, our vitrified clay pipe systems lead the way in the eco-friendly transformation of the infrastructure sector.



Joint Systems

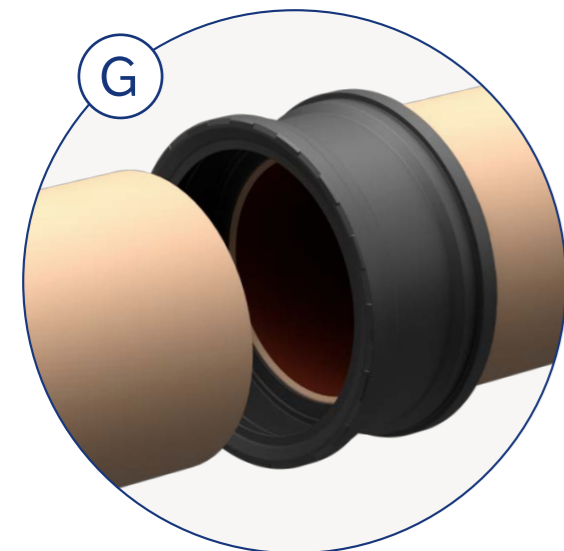
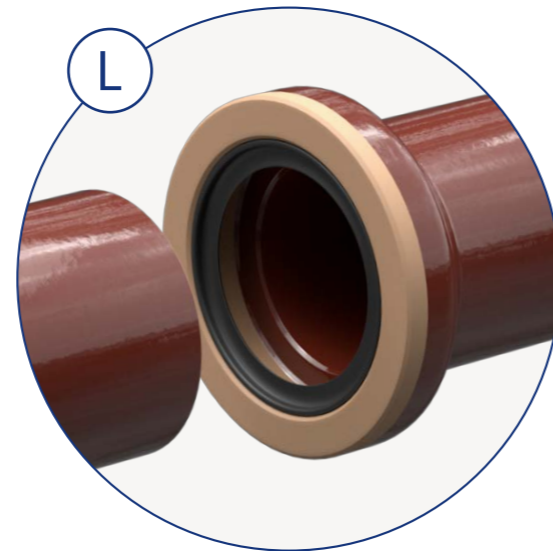
Our sustainable vitrified clay pipe systems meet almost any infrastructure need. We also produce tailor-made pipes and fittings to fit your individual specifications upon inquiry and special order.

Joint System F

According to EN 295-1 Joint System F is a system where the outside diameter of the spigot end d_3 is specified.

L-JOINT

The joint consists of a pre-assembled EPDM profiled rubber sealing ring in the socket.

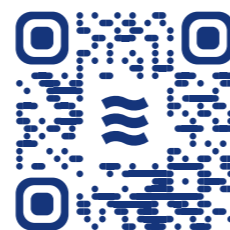


Joint System G

According to EN 295-1 Joint System G is a system where the outside diameter of the spigot end d_3 is specified.

G-COUPLING

The joints are made using a coupling with integrated EPDM profiled rubber sealing rings.

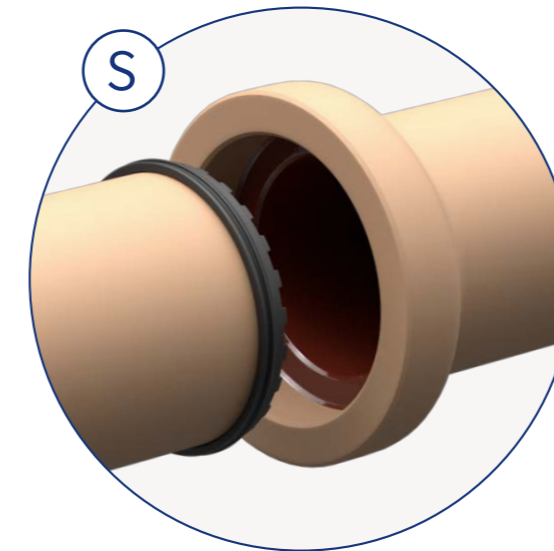
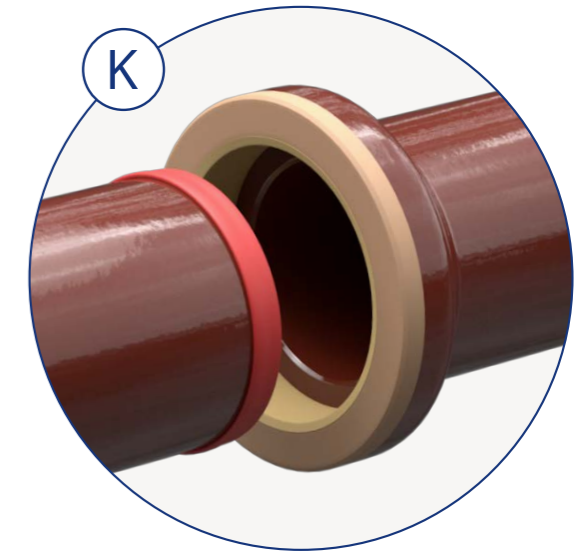


Joint System C

According to EN 295-1 Joint System C is a system where the inside diameter of the socket d_4 is specified.

K-JOINT

The K-joint consists of a pre-assembled hard polyurethane compensating ring in the socket and a pre-assembled soft polyurethane sealing joint on the spigot-end.



Joint System C

According to EN 295-1 Joint System C is a system where the inside diameter of the socket d_4 is specified.

S-JOINT

The S-joint consists of a clay socket which is grinded to specification and a pre-assembled EPDM sealing joint on the spigot-end.

Joint System X

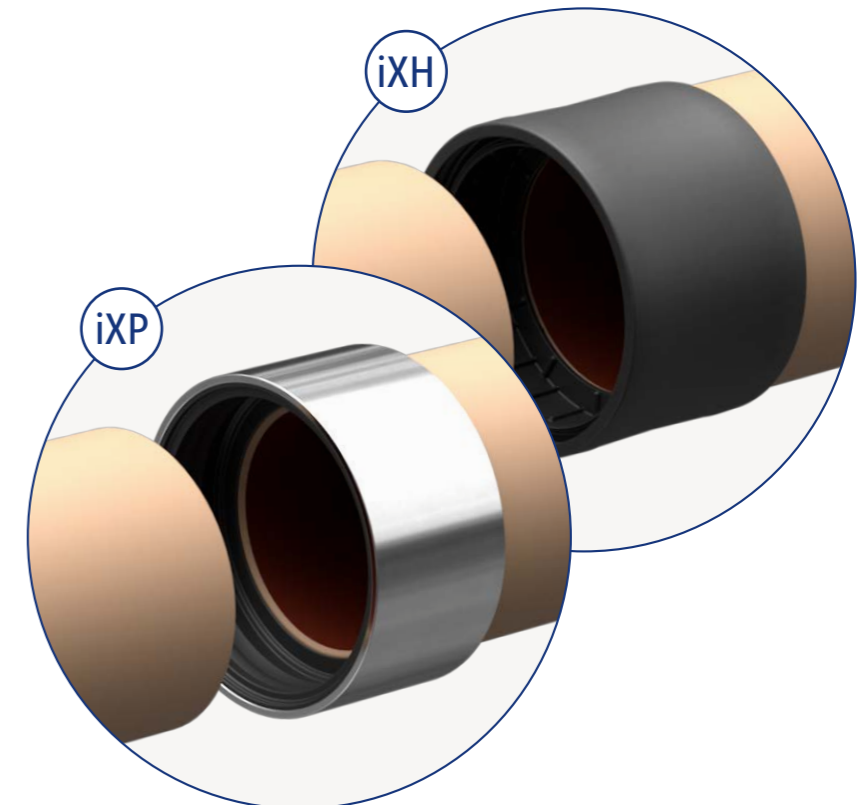
According to ZP WN 295-1 Joint System X is a system where the outside diameter of the spigot end d_3 is specified.

iXP-COUPLING

The joint exists of a stainless steel body with an integrated profiled EPDM rubber sealing.

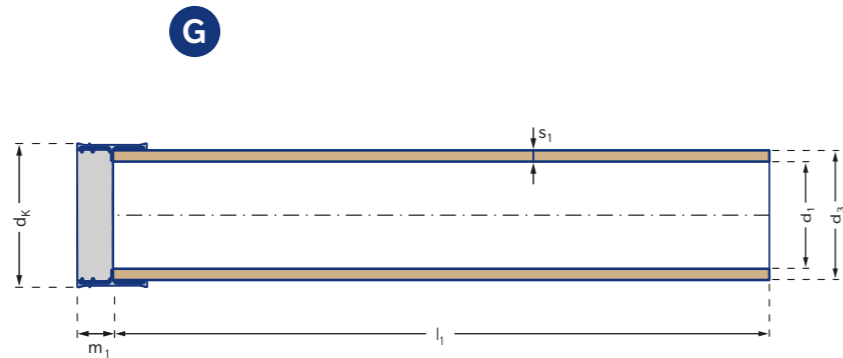
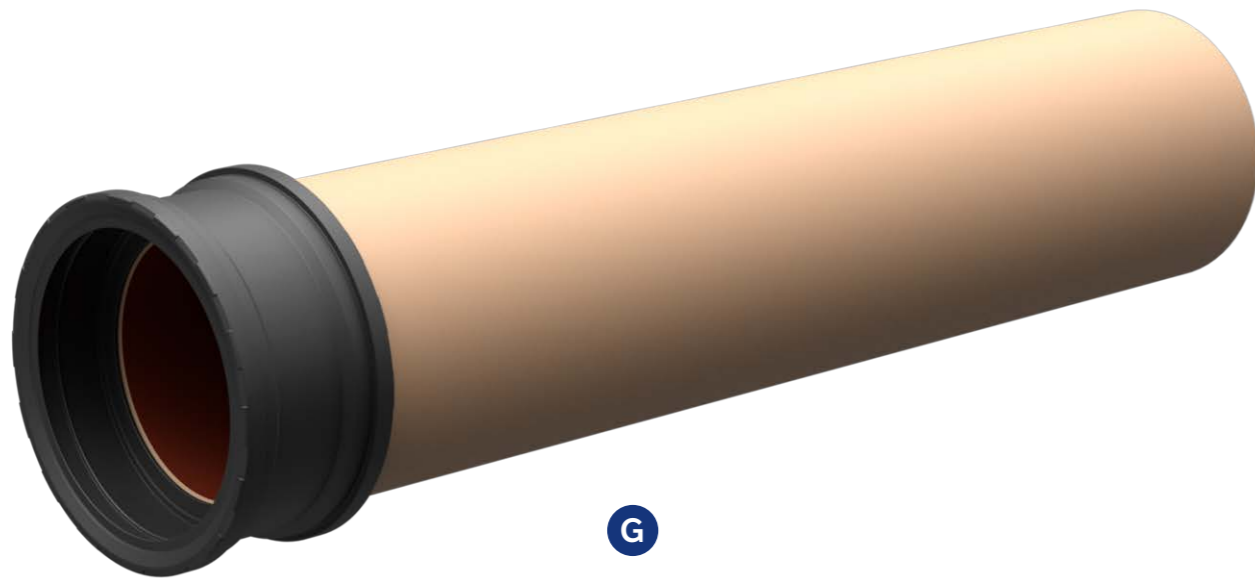
iXH-COUPLING

The joint exists of a PP-Body with an integrated EPDM profiled rubber sealing ring.



Pipes

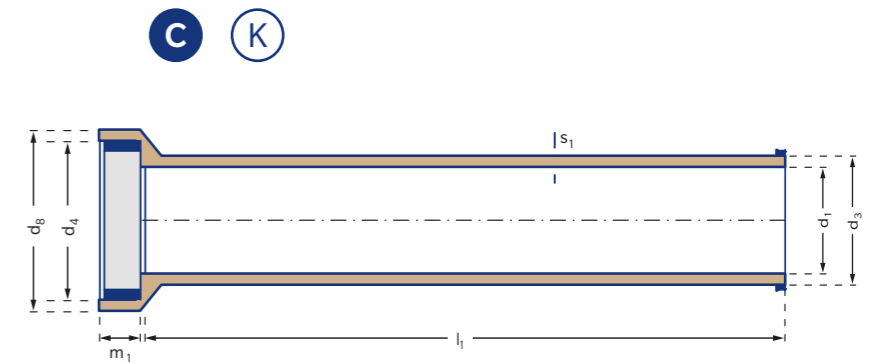
JOINT SYSTEM G



Art. Nr.	Diameter	Joint System	Length	Dimensions (mm)			Weight	Crushing Strength	Strength Class
				DN 1	DN 1	DN 1			
KERA.PRO Pipe – Extra Strength									
70026437	150	G	250	151 ± 5.0	187.75 ± 2.75	-	60	40	40
70026441	225	G	250	227 ± 5.0	278 ± 4.0	-	120	45	200

Pipes

JOINT SYSTEM C

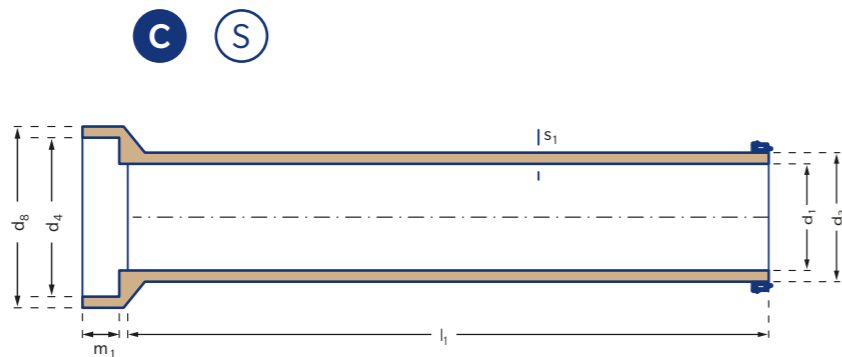


Art. Nr.	Diameter	Joint System	Joint	Length	Dimensions (mm)			Weight	Crushing Strength	Strength Class
					DN 1	DN 1	DN 1			
KERA.BASE Pipe – Normal Strength										
70017695	250	C	K	250	250 ± 6.0	317.5 ± 0.5	400	132	40	160
70017710	300	C	K	250	300 ± 7.0	371.5 ± 0.5	470	181	48	160
70017715	350	C	K	250	348 ± 7.0	433.5 ± 0.5	525	253	56	160
70017755	400	C	K	250	398 ± 8.0	507.5 ± 0.5	620	350	64	160
70017759	500	C	K	250	496 ± 9.0	605 ± 0.5	730	435	60	120
70017763	600	C	K	250	597 ± 12.0	720 ± 0.5	860	575	57	95

KERA.PRO Pipe – Extra Strength										
70017901	250	C	K	250	250 ± 6.0	341.5 ± 0.5	440	188	60	240
70017906	300	C	K	250	300 ± 7.0	398.5 ± 0.5	510	250	72	240
70017910	400	C	K	250	398 ± 8.0	515.5 ± 0.5	650	379	80	200
70017915	500	C	K	250	496 ± 9.0	637 ± 0.5	790	575	80	160
70017919	600	C	K	250	597 ± 12.0	758 ± 0.5	930	780	96	160
70017922	700	C	K	200	696 ± 14.0	871 ± 0.5	1030	810	112	120
70017925	800	C	K	200	796 ± 16.0	976 ± 0.5	1150	950	96	120

Pipes

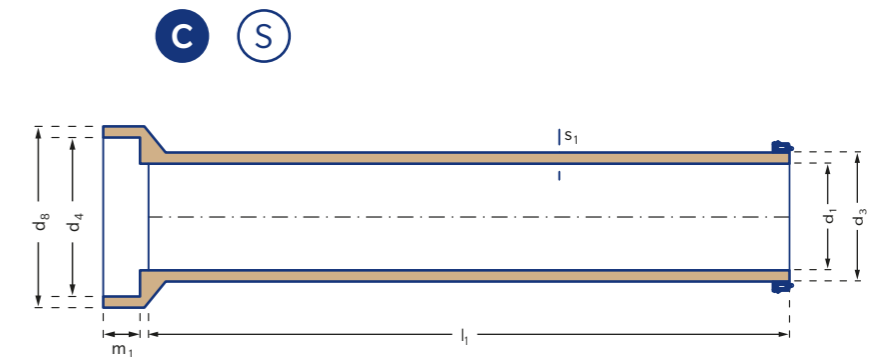
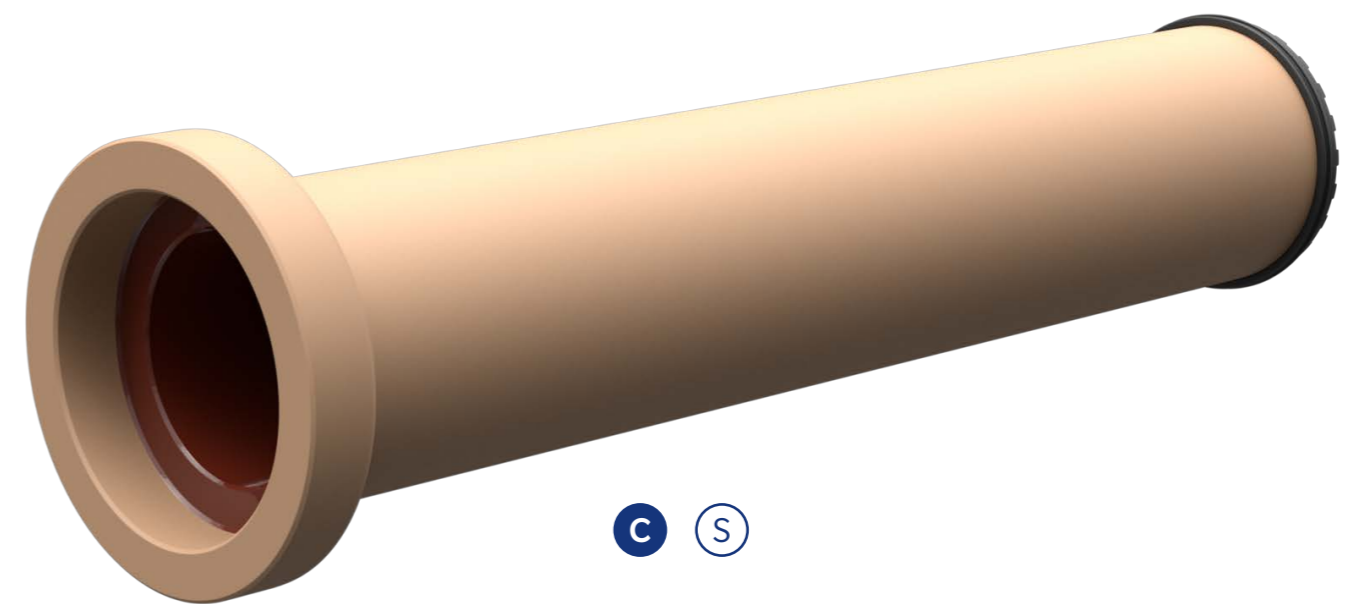
JOINT SYSTEM C



Art. Nr.	Diameter	Joint System	Joint	Length	Dimensions (mm)			Weight	Crushing Strength	Strength Class
					DN 1	DN 1	DN 1			
KERA.BASE Pipe – Normal Strength										
70017711	300	C	S	250	300 ± 7.0	371.5 ± 0.5	470	181	48	160
70017756	400	C	S	250	398 ± 8.0	507.5 ± 0.5	620	350	64	160
70017760	500	C	S	250	496 ± 9.0	605 ± 0.5	730	435	60	120
70017764	600	C	S	250	597 ± 12.0	720 ± 0.5	860	575	57	95
KERA.PRO Pipe – Extra Strength										
70017900	250	C	S	250	250 ± 6.0	341.5 ± 0.5	440	188	60	240
70017905	300	C	S	250	300 ± 7.0	398.5 ± 0.5	510	250	72	240
70017909	400	C	S	250	398 ± 8.0	515.5 ± 0.5	650	379	80	200
70017914	500	C	S	250	496 ± 9.0	637 ± 0.5	790	575	80	160
70017918	600	C	S	250	597 ± 12.0	758 ± 0.5	930	780	96	160

Pipes

JOINT SYSTEM C



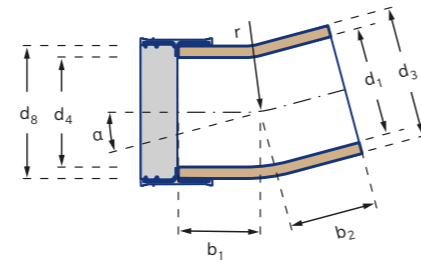
Art. Nr.	Diameter	Joint System	Joint	Length	Dimensions (mm)			Weight	Crushing Strength	Strength Class
					DN 1	DN 1	DN 1			
KERA.BASE Pipe – (Unglazed) Normal Strength										
70017770	200	C	S	250	200 ± 5.0	260 ± 0.5	300	92	40	200
70017771	250	C	S	250	350 ± 6.0	317.5 ± 0.5	400	132	40	160
KERA.PRO Pipe – (Unglazed) Extra Strength										
70017897	200	C	S	250	200 ± 5.0	275 ± 0.5	315	107	48	240

Bends 15°

JOINT SYSTEM G



G



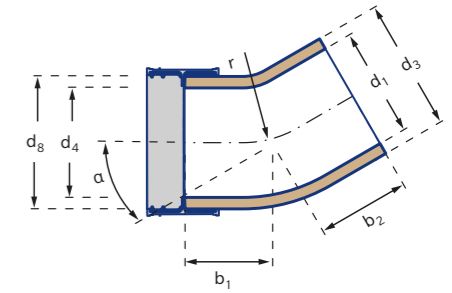
Art. Nr.	Diameter	Joint System	Dimensions (mm)				Weight	Strength Class
	DN 1		DN 1	b ₁	b ₂	e min.		
KERA.PRO Bend 15° – Extra Strength								
70021583	150	G	145	145	75	150	10	40
70026445	225	G	155	155	75	225	25	200

Bends 45°

JOINT SYSTEM G



G



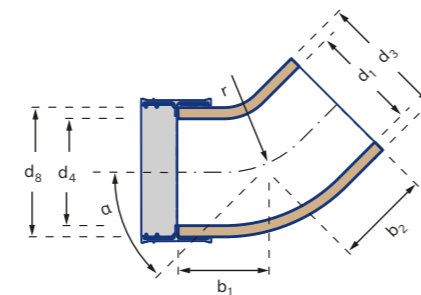
Art. Nr.	Diameter	Joint System	Dimensions (mm)				Weight	Strength Class
	DN 1		DN 1	b ₁	b ₂	e min.		
KERA.PRO Bend 45° – Extra Strength								
70021585	150	G	150	150	75	150	10	40
70026447	225	G	165	165	75	225	25	200

Bends 30°

JOINT SYSTEM G



G



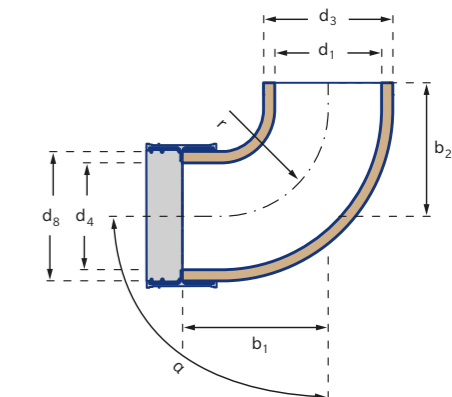
Art. Nr.	Diameter	Joint System	Dimensions (mm)				Weight	Strength Class
	DN 1		DN 1	b ₁	b ₂	e min.		
KERA.PRO Bend 30° – Extra Strength								
70021584	150	G	150	150	75	150	10	40
70026446	225	G	165	165	75	225	25	200

Bends 90°

JOINT SYSTEM G



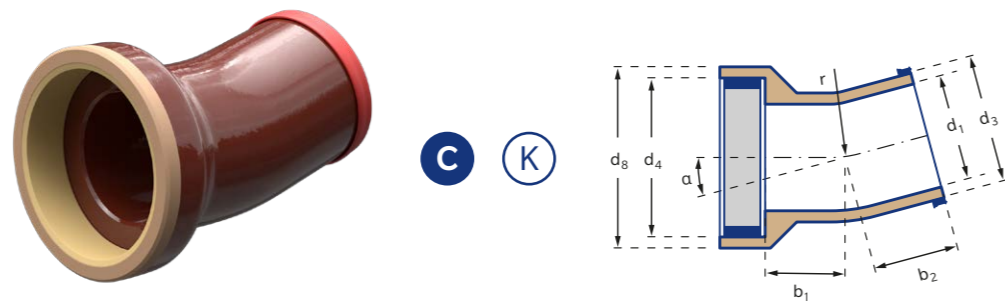
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Art. Nr.	Diameter	Joint System	Dimensions (mm)				Weight	Strength Class
	DN 1		DN 1	b ₁	b ₂	e min.		
KERA.PRO Bend 90° – Extra Strength								
70026435	150	G	220	220	75	150	10	40
70026448	225	G	235	235	75	225	25	200

Bends 15°

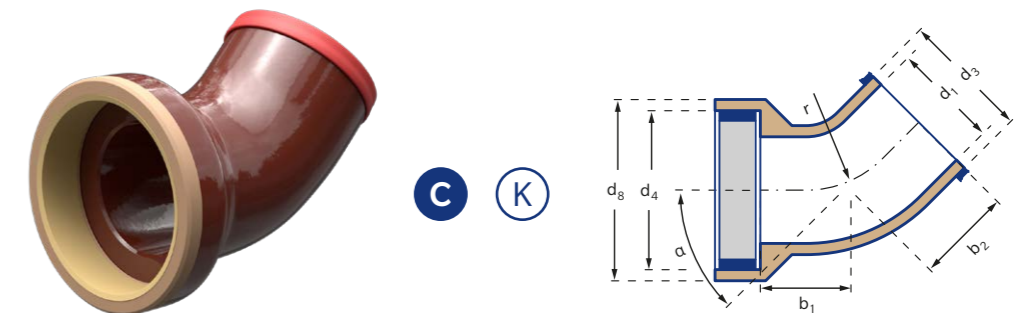
JOINT SYSTEM C



Art. Nr.	Diameter	Joint	Dimensions (mm)				Weight	Strength Class
			DN 1	DN 1	b ₁	b ₂		
KERA.BASE Bend 15° - Normal Strength								
70018017	200	K	150	160	85	200	15	200
70018021	250	K	155	165	85	250	25	160
70018023	300	K	200	210	85	300	37	160
KERA.PRO Bend 15° - Extra Strength								
70018029	200	K	150	160	85	200	22	240
70018031	250	K	155	165	85	250	45	240
70018033	300	K	200	210	85	300	59	240

Bends 45°

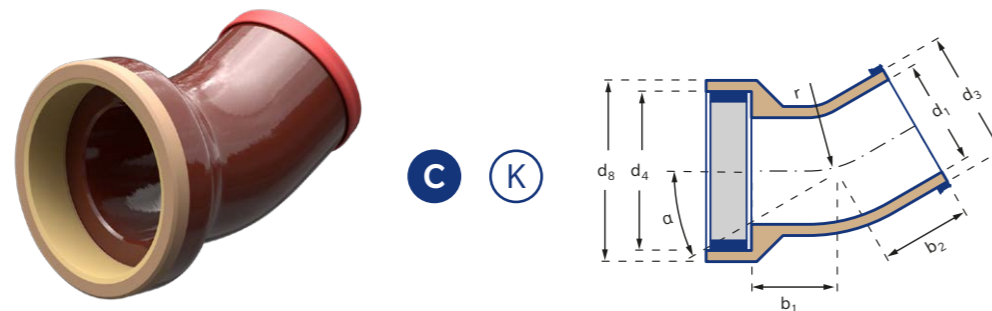
JOINT SYSTEM C



Art. Nr.	Diameter	Joint	Dimensions (mm)				Weight	Strength Class
			DN 1	DN 1	b ₁	b ₂		
KERA.BASE Bend 45° - Normal Strength								
70018038	200	K	170	180	85	200	15	200
70018042	250	K	190	200	85	250	25	160
70018044	300	K	215	225	85	300	37	160
KERA.PRO Bend 45° - Extra Strength								
70018049	200	K	160	170	85	200	22	240
70018051	250	K	170	180	85	250	45	240
70018053	300	K	215	225	85	300	59	240

Bends 30°

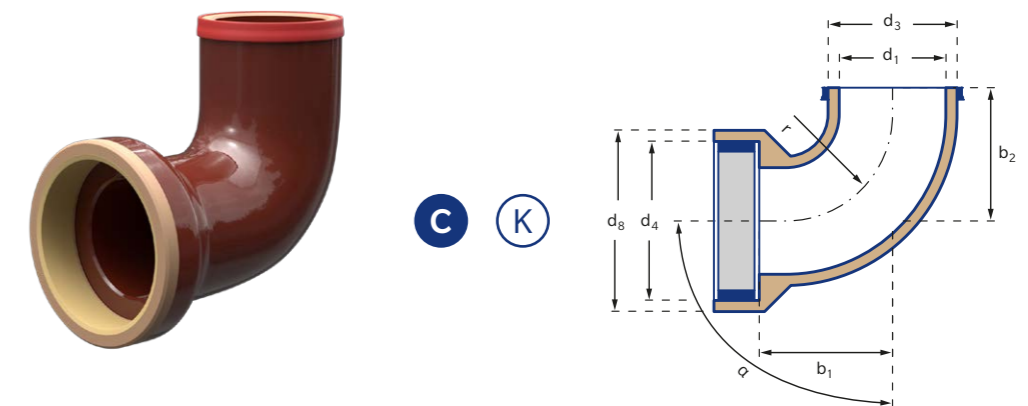
JOINT SYSTEM C



Art. Nr.	Diameter	Joint	Dimensions (mm)				Weight	Strength Class
			DN 1	DN 1	b ₁	b ₂		
KERA.BASE Bend 30° - Normal Strength								
70017988	200	K	160	170	85	200	15	200
70017992	250	K	170	180	85	250	25	160
70017994	300	K	215	225	85	300	37	160
KERA.PRO Bend 30° - Extra Strength								
70017998	200	K	160	170	85	200	22	240
70018000	250	K	170	180	85	250	45	240
70018002	300	K	215	225	85	300	59	240

Bends 90°

JOINT SYSTEM C



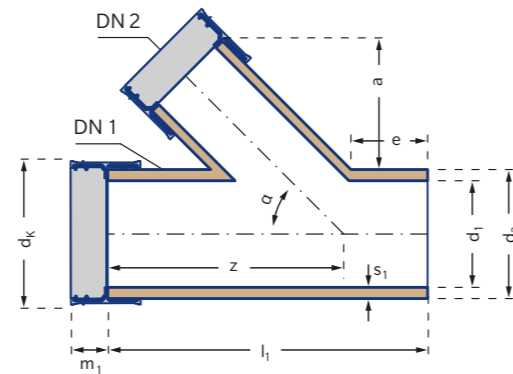
Art. Nr.	Diameter	Joint	Dimensions (mm)				Weight	Strength Class
			DN 1	DN 1	b ₁	b ₂		
KERA.BASE Bend 90° - Normal Strength								
70017968	200	K	250	250	85	200	15	200

Junction 45°

JOINT SYSTEM G



G



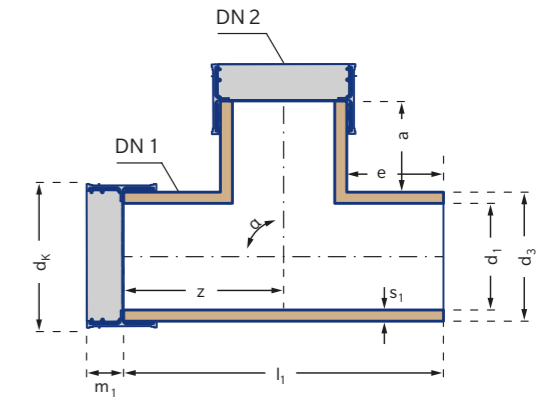
Art. Nr.	Diameter (mm)		Joint System		Length cm	Dimensions (mm)			Weight Kg /piece	Strength Class	
	DN 1	DN 2	DN 1	DN 2		a max.	e min.	z max.		DN 1	DN 2
KERA.PRO Junction 45° – Extra Strength											
70021586	150	150	G	G	46	270	75	355	20	40	40
70026449	225	150	G	G	50	300	75	400	35	200	40
70026450	225	225	G	G	60	350	75	460	45	200	200

Junction 90°

JOINT SYSTEM G



G



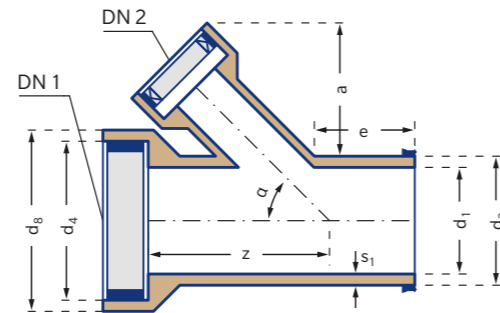
Art. Nr.	Diameter (mm)		Joint System		Length cm	Dimensions (mm)			Weight Kg /piece	Strength Class	
	DN 1	DN 2	DN 1	DN 2		a max.	e min.	z max.		DN 1	DN 2
KERA.PRO Junction 90° – Extra Strength											
70021587	150	150	G	G	46	160	75	230	15	40	40
70026451	225	150	G	G	50	170	75	250	35	200	40
70026452	225	225	G	G	60	180	75	300	45	200	200

Junction 45°

JOINT SYSTEM C



C F K



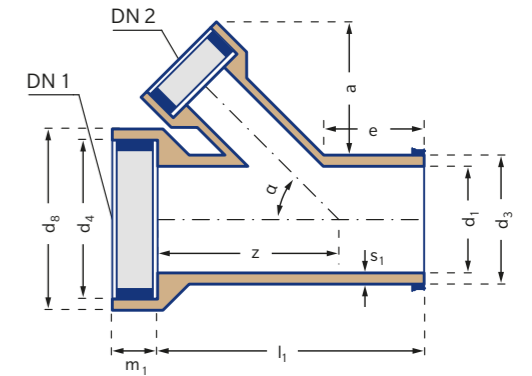
Art. Nr.	Diameter (mm)		Joint		Length (cm)	Dimensions (mm)			Weight (kg./Stk.)	Strength Class	
	DN 1	DN 2	DN 1	DN 2		a max.	e min.	z max.		DN 1	DN 2
KERA.BASE Junction 45° – Normal Strength											
70018264	200	150	K	L	50	305	85	400	32	200	34
70018272	250	150	K	L	50	300	85	400	41	160	34
70018276	250	200	K	L	60	350	85	465	48	160	200
70018282	300	150	K	L	50	300	85	430	49	160	34
70018286	300	200	K	L	60	350	85	495	60	160	200
KERA.PRO Junction 45° – Extra Strength											
70018344	200	150	K	L	50	305	85	435	36	240	34
70018342	200	200	K	L	60	350	85	435	42	240	200
70018348	250	150	K	L	50	300	85	465	55	240	34
70018350	250	200	K	L	60	350	85	465	64	240	200
70018354	300	150	K	L	50	300	85	495	73	240	34
70018356	300	200	K	L	60	350	85	545	86	240	200

Junction 45°

JOINT SYSTEM C



C C K



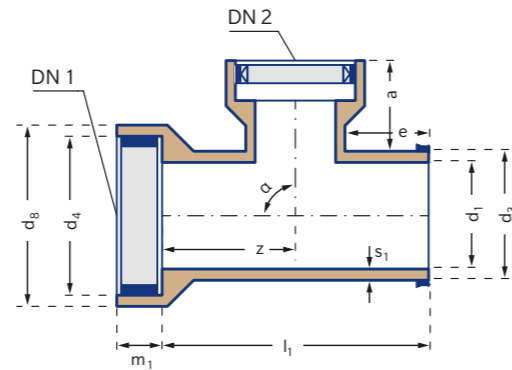
Art. Nr.	Diameter (mm)		Joint		Length (cm)	Dimensions (mm)			Weight (kg./Stk.)	Strength Class	
	DN 1	DN 2	DN 1	DN 2		a max.	e min.	z max.		DN 1	DN 2
KERA.BASE Junction 45° – Normal Strength											
70018257	200	200	K	K	60	350	85	460	40	200	200
70018275	250	200	K	K	60	350	85	465	48	160	200
70018285	300	200	K	K	60	350	85	495	60	160	200
KERA.PRO Junction 45° – Extra Strength											
70018340	200	200	K	K	60	350	85	435	42	240	200
70018352	250	200	K	K	60	350	85	465	64	240	200
70018358	300	200	K	K	60	350	85	545	86	240	200

Junction 90°

JOINT SYSTEM C



C F K



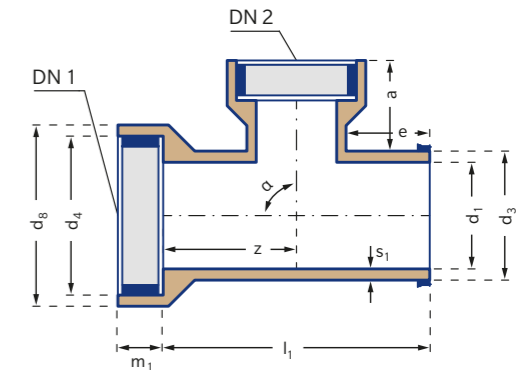
Art. Nr.	Diameter (mm)		Joint		Length cm	Dimensions (mm)			Weight Kg /piece	Strength Class	
	DN 1	DN 2	DN 1	DN 2		a max.	e min.	z max.		DN 1	DN 2
KERA.BASE Junction 90° – Normal Strength											
70018092	200	150	K	L	50	170	85	250	32	200	34
70018100	250	150	K	L	50	170	85	250	41	160	34
70018102	250	200	K	L	60	180	85	300	48	160	200
70018118	300	150	K	L	50	170	85	250	49	160	34
70018122	300	200	K	L	60	200	85	300	60	160	200
KERA.PRO Junction 90° – Extra Strength											
70018207	200	150	K	L	50	170	85	250	36	240	34
70018203	200	200	K	L	60	180	85	300	42	240	200
70018209	250	150	K	L	50	170	85	250	55	240	34
70018211	250	200	K	L	60	180	85	300	64	240	200
70018215	300	150	K	L	50	170	85	250	73	240	34
70018217	300	200	K	L	60	200	85	300	86	240	200

Junction 90°

JOINT SYSTEM C



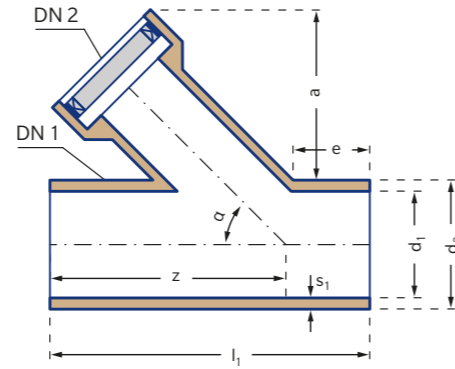
C C K



Art. Nr.	Diameter (mm)		Joint		Length cm	Dimensions (mm)			Weight Kg /piece	Strength Class	
	DN 1	DN 2	DN 1	DN 2		a max.	e min.	z max.		DN 1	DN 2
KERA.BASE Junction 90° – Normal Strength											
70018086	200	200	K	K	60	180	85	300	40	200	200
70018104	250	200	K	K	60	180	85	300	48	160	200
70018121	300	200	K	K	60	200	85	300	60	160	200
KERA.PRO Junction 90° – Extra Strength											
70018204	200	200	K	K	60	180	85	300	42	240	200
70018212	250	200	K	K	60	180	85	300	64	240	200
70018219	300	200	K	K	60	200	85	300	86	240	200

Repair Junction 45°

JOINT SYSTEM F

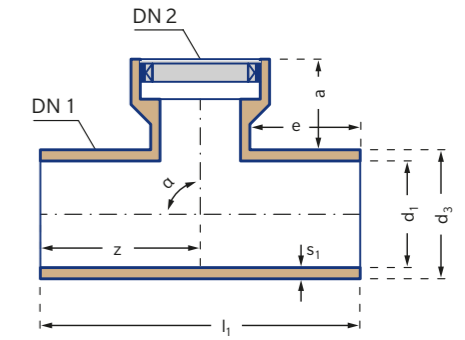


Art. Nr.	Diameter		Joint	Length (cm)	Dimensions (mm)			Weight Kg /piece	Strength Class	
	DN 1	DN 2			DN 2	l_1	a max.		e min.	z max.
KERA.BASE Repair Junction 45° – Normal Strength										
70018317	200	150	L	60	305	85	450	25	200	34
70018314	200	200	L	60	350	85	450	30	200	200
70018319	250	150	L	60	300	85	450	34	160	34
70018320	250	200	L	60	350	85	450	36	160	200
70018323	300	150	L	60	300	85	450	42	160	34
70018325	300	200	L	60	350	85	450	44	160	200

KERA.PRO Repair Junction 45° – Extra Strength										
Art. Nr.	DN 1	DN 2	Joint	Length (cm)	a max.	e min.	z max.	Weight Kg /piece	DN 1	DN 2
70018330	200	150	L	60	305	85	450	32	240	34
70022570	200	200	L	60	350	85	450	34	240	200
70018332	250	150	L	60	300	85	450	48	240	34
70018333	250	200	L	60	350	85	450	50	240	200
70018336	300	150	L	60	300	85	450	62	240	34
70018337	300	200	L	60	300	85	450	64	240	200

Repair Junction 90°

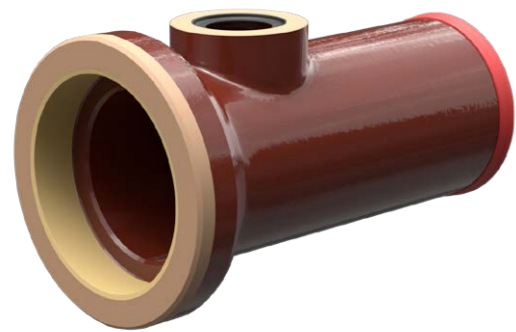
JOINT SYSTEM F



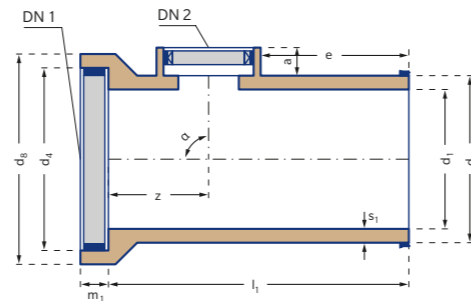
Art. Nr.	Diameter		Joint	Length (cm)	Dimensions (mm)			Weight Kg /piece	Strength Class	
	DN 1	DN 2			DN 2	l_1	a max.		e min.	z max.
KERA.BASE Repair Junction 90° – Normal Strength										
70018183	200	150	L	50	170	85	250	25	200	34
70018181	200	200	L	60	180	85	300	30	200	200
70018185	250	150	L	50	170	85	250	34	160	34
70018187	250	200	L	60	180	85	300	36	160	200
70018190	300	150	L	50	170	85	250	42	160	34
70018192	300	200	L	60	200	85	300	44	160	200

Compact Junction 90°

JOINT SYSTEM C



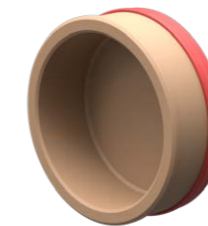
C F K



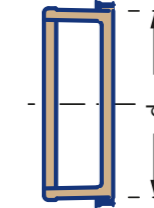
Art. Nr.	Diameter		Joint		Length (cm)	Dimensions (mm)			Weight Kg /piece	Strength Class	
	DN 1	DN 2	DN 1	DN 2		l ₁	a max.	e min.		z max.	DN 1
KERA.BASE Compact Junction 90° – Normal Strength											
70018126	350	150	K	L	75	85	85	250	68	160	34
70018129	350	200	K	L	75	95	85	250	85	160	200
70018135	400	150	K	L	75	85	85	350	145	160	34
70018320	400	200	K	L	75	95	85	350	120	160	200
70018138	500	150	K	L	75	85	95	350	190	120	34
70018143	500	200	K	L	75	95	95	350	155	120	200
70018148	600	150	K	L	75	85	95	350	258	95	34
70018153	600	200	K	L	75	95	95	350	205	95	200
KERA.PRO Compact Junction 90° – Extra Strength											
70018220	400	150	K	L	75	85	85	350	172	200	34
70018225	400	200	K	L	75	95	85	350	129	200	200
70018227	500	150	K	L	75	85	95	350	270	160	34
70018230	500	200	K	L	75	95	95	350	203	160	200
70018234	600	150	K	L	75	85	95	350	360	160	34
70018236	600	200	K	L	75	95	95	350	285	160	200
70019313	700	150	K	L	75	170	95	350	540	120	34
70018239	800	150	K	L	75	170	95	350	619	120	34

End Caps

JOINT SYSTEM C



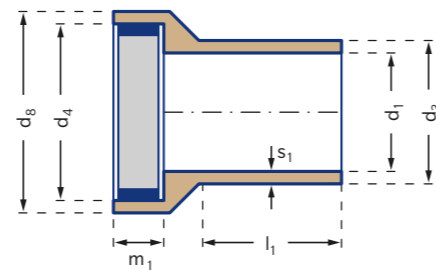
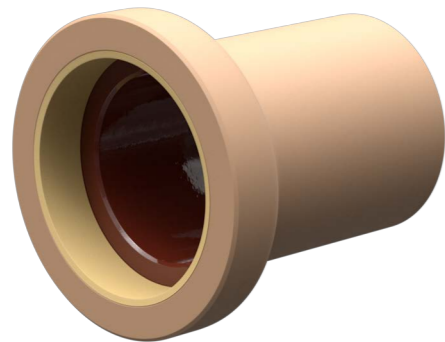
C K



Art. Nr.	Diameter (mm)		Weight (kg/Stk.)	Strength Class
	DN 1	DN 1		
KERA.BASE End Cap – Normal Strength				
70018056	200	DN 1	4	200
70018057	250	DN 1	5	160
70018060	300	DN 1	6	160
70018062	400	DN 1	15	160
KERA.PRO End Cap – Extra Strength				
70018069	200	DN 1	8	240
70018070	250	DN 1	12	240
70018071	300	DN 1	14	240
70018072	400	DN 1	24	200

Connectors (GE)

JOINT SYSTEM C

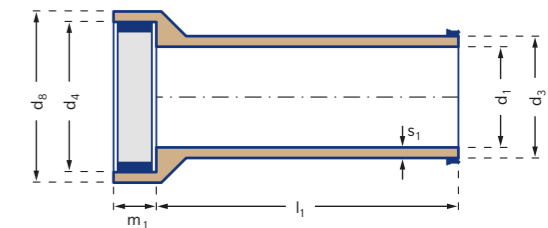
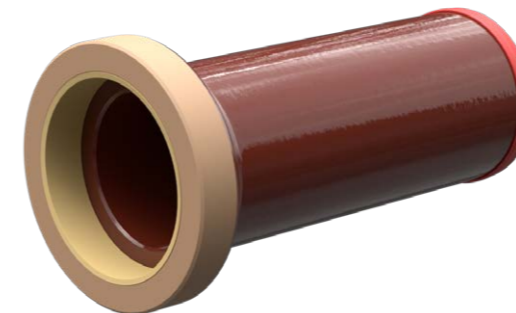


Art. Nr.	Diameter	Joint	Length (cm)	Weight	Strength Class
	DN 1	DN 1	l_1	Kg /piece	DN 1
KERA.BASE Connector (GE) – Normal Strength					
70017721	200	K	25	14	200
70017725	250	K	25	20	160
70017727	300	K	25	31	160
70017729	350	K	25	37	160
70017730	400	K	25	61	160
70017732	500	K	25	84	120
70017735	600	K	25	118	95

KERA.PRO Connector (GE) – Extra Strength					
70017739	200	K	25	21	240
70017741	250	K	25	35	240
70017743	300	K	25	46	240
70017744	400	K	25	67	200
70017747	500	K	25	123	160
70017749	600	K	25	176	160
70017751	700	K	25	185	120
70017752	800	K	25	215	120

Inlet Connectors (GZ)

JOINT SYSTEM C



Art. Nr.	Diameter	Joint	Length (cm)	Weight	Strength Class
	DN 1	DN 1	l_1	Kg /piece	DN 1
KERA.BASE Inlet Connector (GZ) – Normal Strength					
70017721	200	K	60	25	200
70017725	250	K	60	41	160
70017727	300	K	60	56	160
70017729	350	K	60	83	160
70017730	400	K	60	115	160
70017732	500	K	60	146	120
70017735	600	K	60	197	95

KERA.PRO Inlet Connector (GZ) – Extra Strength					
70017808	200	K	60	36	240
70017810	250	K	60	65	240
70017813	300	K	60	84	240
70017816	400	K	75	128	200
70017820	500	K	75	208	160
70017823	600	K	75	279	160
70017826	700	K	75	335	120
70017830	800	K	75	395	120

Outlet Connectors (GA)

JOINT SYSTEM C



Art. Nr.	Diameter	Length (cm)	Weight (kg./Stk.)	Strength Class	
	DN 1	l ₁		DN 1	DN 2
KERA.BASE Outlet Connector (GA) – Normal Strength					
70017846	250	60	34	160	160
70017850	300	60	45	160	160
70017853	350	75	71	160	160
70017855	400	75	95	160	160
70017858	500	75	117	120	120
70017861	600	75	160	95	95

KERA.PRO Outlet Connector (GA) – Extra Strength					
70017866	200	60	31	240	240
70017868	250	60	48	240	240
70017872	300	60	66	240	240
70017876	400	75	111	200	200
70017881	500	75	163	160	160
70017884	600	75	220	160	160
70017887	700	75	285	120	120
70017890	800	75	335	120	120

Material Properties of Vitrified Clay

150 years or more of service life

Piping systems made of vitrified clay easily fulfil the extremely high demands and the broad spectrum of properties required for economically efficient and sustainable operation - and over periods well exceeding one hundred fifty years to boot.

The properties of the material, the joints, and the individual components are exceptional.

Longitudinal compression resistance	100 N/mm ²	Frost resistance	fulfilled
Wall thicknesses	up to 100 mm	Biological resistance	fulfilled
Specific weight	22 kN/m ³	Ozone resistance	fulfilled
Bending tensile strength	≥ 18 N/mm ²	Hardness (Mohs)	~ 7
Tensile strength	min. 10 N/mm ²	Fatigue strength	
Modulus of elasticity	~ 50,000 N/mm ²	under cyclic load (stress range)	12.8 N/mm ²
Coefficient of thermal expansion	~ 5x 10 ⁻⁶ K ⁻¹	Reaction to fire	non-flammable
Thermal conductivity	~ 1.2 W/m x K	Wall roughness	k = 0.02 mm
Poisson's ratio	0.25	Abrasion resistance	a _m ≤ 0.25 mm
Watertightness	up to 2.4 bar	Resistance against	
Corrosion resistance	fulfilled	high pressure cleaning	up to 280 bar
Chemical resistance	pH 0 to 14		

Clay

The main ingredient of The One. A widely abundant and practically inexhaustible resource that is fully natural, formed by sedimentation.

Chamotte

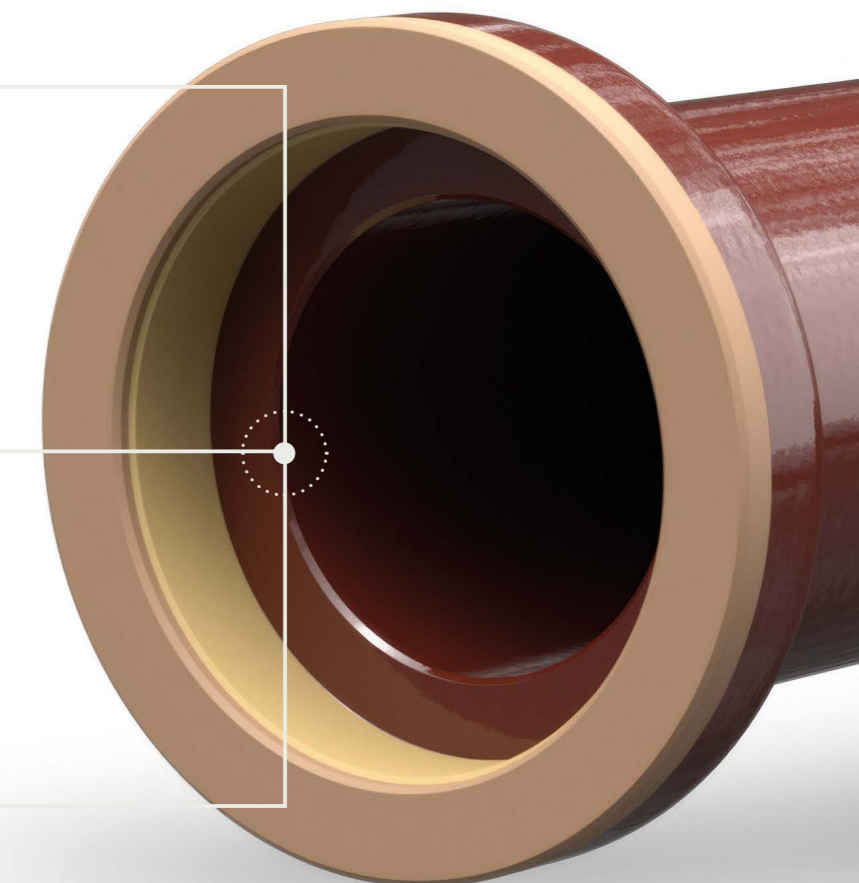
Chamotte is the term used for recycled ceramic material.

The chamotte is grinded back into granular size and incorporated in the clay mixture to provide strength to the pipes.

All our ceramic products contain at least 30% recycled material that does not degrade and holds a guarantee of the same quality.

Water

Our clay already contains a suitable amount of moisture so the need to add water is limited.

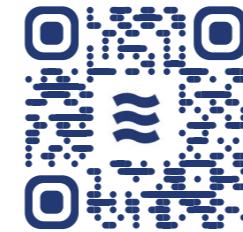


Service & Support

We're at your side for every project

We are committed to taking care of your needs, working with you at every stage, and supporting you in all matters concerning sewer construction. Our expert employees around the world embody this comprehensive service concept.

- Regional contacts
- On-site consultancy service
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Infrastructure Manager for water and sewage from a single source

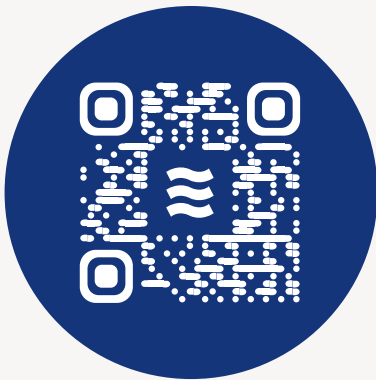


You benefit from the widest range of infrastructure solutions and expertise for water and wastewater in Europe, and always with a professional infrastructure consultant at your side.



**Vitrified Clay
Sewers**

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- KERA.PRO**
- KERA.iX**
- KERA.PORT**
- KERA.DRIVE**
- KERA.MAT**



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