



technical sheet

CERTIFICATION OF

VITRIFIED CLAY PIPE SYSTEMS

BENOR

This technical data sheet was printed on 30/04/2024.
The validity of this technical data sheet can be checked on
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TECHNICAL DATA SHEET		
QUICK CODE	VERSION	VALIDITY
0001/0006	7.0 - 22/01/2024	CERTIFIED
CERTIFICATE HOLDER	PRODUCTION UNIT	CERTIFICATE NUMBER
STEINZEUG-KERAMO 'WERK 2' Paalsteenstraat 36 BE-3500 Hasselt +32 11 21 02 32 info@steinzeug-keramo.com	STEINZEUG-KERAMO 'WERK 2' Paalsteenstraat 36 BE-3500 Hasselt +32 11 21 02 32 info@steinzeug-keramo.com	BENOR 001/95 Vitrified clay pipe systems

PRODUCT																
OFFICIAL NAME	COMMERCIAL NAME															
COMPONENTS OF MANHOLES AND INSPECTION CHAMBERS	VITRIFIED CLAY MANHOLES															
CAPTION ON THE PRODUCT																
BENOR Production date Production unit EN 295-6 PTV 895-6 Nominal size (DN...) of manhole or inspection chamber Nominal size (DN...) of pipeline connection components Joint system of manhole and inspection chamber sections Joint system of pipeline connections with their crushing strength or class number Crushing strength of manhole and inspection chamber components FN in kN/m Design depth (if greater than 5m)																
APPLICATION																
<table border="0"> <tr> <td><input checked="" type="checkbox"/> CCT/TB 2015</td> <td><input checked="" type="checkbox"/> PTV 895-6 (3.0)</td> <td><input checked="" type="checkbox"/> EN 295-6 (2013)</td> </tr> <tr> <td><input checked="" type="checkbox"/> CCT Qualiroutes (2017)</td> <td></td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> SB 250 - versie 4.1</td> <td></td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> CCT Qualiroutes (2021)</td> <td></td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> SB 250 - versie 4.1 + errata</td> <td></td> <td></td> </tr> </table> <p>This product was not checked according to the crossed-out reference documents or does not comply with them.</p> <p>Use: Drains and sewers.</p>		<input checked="" type="checkbox"/> CCT/TB 2015	<input checked="" type="checkbox"/> PTV 895-6 (3.0)	<input checked="" type="checkbox"/> EN 295-6 (2013)	<input checked="" type="checkbox"/> CCT Qualiroutes (2017)			<input checked="" type="checkbox"/> SB 250 - versie 4.1			<input checked="" type="checkbox"/> CCT Qualiroutes (2021)			<input checked="" type="checkbox"/> SB 250 - versie 4.1 + errata		
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<input checked="" type="checkbox"/> CCT Qualiroutes (2021)																
<input checked="" type="checkbox"/> SB 250 - versie 4.1 + errata																

EXPLANATIONS (THIS DOES NOT COME UNDER SUPERVISION IN THE CONTEXT OF BENOR CERTIFICATION)

ATTENTION POINTS - TO BE CHECKED BY CUSTOMER (NOT LIMITED)

- * Is there a delivery note for each delivery?
- * Is there reference to the technical data sheet on the delivery document?
- * Does the technical data sheet code mentioned on the delivery note correspond with the code mentioned on the product?
- * Does the product meet the requirements from the tender?

FORM OF DELIVERY

EXTRA INFORMATION

- * In case vulcanized rubber sealing elements are supplied as separate components, they should be marked with reference to PTV 8681-1 and the classification for high chemical resistance.
- * Coupling materials such as polypropylene sleeve couplings should be marked with reference to PTV 895-6.
- * Prefabricated synthetic liners should be marked with reference to PTV 8450-1.
- * Prefabricated concrete elements should be marked with reference to PTV 21-101.
- * The KeraMat Lubricant shall be used for all vitrified clay joint systems.
- * The conformity of the rubber components according to PTV 895-6 and EN 681-1 is demonstrated by an equivalence procedure, which is part of the BENOR certification of the vitrified clay product.

Contact at

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 * **Certificate holder:** René van Veldhoven +32 11 21 02 32 R.vanVeldhoven@steinzeug-keramo.com

PRODUCT CHARACTERISTICS

GENERAL REQUIREMENTS	ACCORDING	UNIT	VALUE	MIN	MAX
Water absorption	PTV 895-6, Clause 3.4.2	%	-	-	6
Appearance	PTV 895-6, Clause 3.4.3		Glazed	-	-
DIMENSIONAL REQUIREMENTS	ACCORDING	UNIT	VALUE	MIN	MAX
Internal diameter (*)	PTV 895-6, Clause 3.4.4	mm	See drawing	-	-
Height (*)	PTV 895-6, Clause 3.4.5	mm	See drawing	-	-
Angle of curvature and radius of channel bends (*)	PTV 895-6, Clause 3.4.6	°	See drawing	-	-
Branch angle of channel junctions (*)	PTV 895-6, Clause 3.4.7	°	See drawing	-	-
OTHER REQUIREMENTS	ACCORDING	UNIT	VALUE	MIN	MAX
Crushing strength (*)	PTV 895-6, clause 3.4.8	kN/m	See drawing	-	-
Bending tensile strength	PTV 895-6, Clause 3.4.9	N/mm ²	-	18	-
Bond strength of adhesive for fixing clay parts	PTV 895-6, Clause 3.4.10		-	-	-
<i>Minimum bending tensile strength of the bond</i>		N/mm ²	-	5	-
<i>Minimum strength after immersion</i>		N/mm ²	-	5	-
Fatigue strength under cyclic load	PTV 895-6, Clause 3.4.11		Pass	-	-
Chemical resistance (*)	PTV 895-6, Clause 3.4.12	%	-	-	0.15
REQUIREMENTS FOR ASSEMBLED COMPONENTS	ACCORDING	UNIT	VALUE	MIN	MAX

Watertightness of assembled components (*)	PTV 895-6, Clause 3.5.2		Pass	-	-
Pull-off resistance of the synthetic liner	PTV 895-6, Clause 3.5.3	MPa	-	0,4	-
Pull-off resistance after 1 year synthetic liner	PTV 895-6, Clause 3.5.4	MPa	-	0,4	-

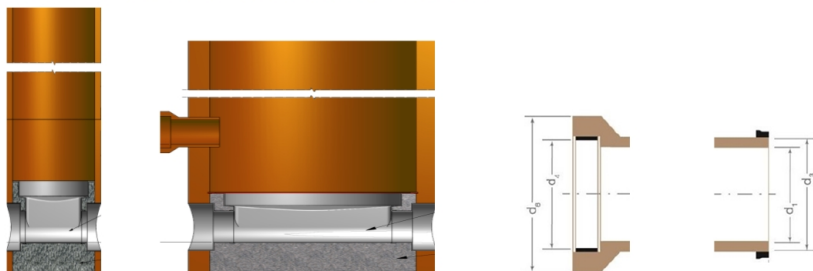
(*) These product characteristics are a statement by the producer taken from its declaration of performance. The certificate holder declares that the values listed are in accordance with its declaration of performance.

TECHNICAL DRAWING

Nominale diameter	Verbindings-systeem	Maten put		Kruindruk-weerstand	Sterkte-klasse	Maten aansluitingen		Verbindings-systeem	Sterkte-klasse	Krommingshoek en radius van bochten in het stroomprofiel	Hoek van aftakkingen in het stroomprofiel	Hoogte			
Nominal size	Joint system	Dimensions manhole		Crushing strength	Strength class	Dimensions connections		Joint system	Strength class	Angle of curvature and radius of channel bends	Branch angles of channel junctions	Height			
Diamètre nominal	Système d'assemblage	Dimension regard		Résistance à l'écrasement	Classe de résistance	Dimension raccordements		Système d'assemblage	Classe de résistance	Rayon de courbure des demi-sections de pièce coulée	Angle des demi-sections de pièce en branchement	Hauteur			
DN		binnenkant buis inner pipe intérieur tuyaux d ₁ mm	binnenkant mof inner socket intérieur du collet d ₂ mm	FN kN/m		DN	binnenkant buis inner pipe intérieur tuyaux d ₁ mm	binnenkant mof inner socket intérieur du collet d ₂ mm		Specificatie klant Customer specification Spécification du client					
										°	°	mm			
300	C	300 ± 7	371,5 ± 0,5	48	160	100	100 ± 4	-	F	34	± 3°	± 3°			
						125	126 ± 4			34					
						150	151 ± 5			34					
						200	200 ± 5			200					
						200	200 ± 5			260 ± 0,5				C	200
400	C	398 ± 8	507,5 ± 0,5	64	160	100	100 ± 4	-	F	34	± 3°	± 3°			
						125	126 ± 4			34					
						150	151 ± 5			34					
						200	200 ± 5			200					
						200	200 ± 5			260 ± 0,5				C	200
600	C	597 ± 12	720 ± 0,5	57	95	100	100 ± 4	-	F	34	± 1°	± 1°			
						125	126 ± 4			34					
						150	151 ± 5			34					
						200 N	200 ± 5			200					
						200 N	200 ± 5			260 ± 0,5				C	200
800	C	796 ± 16	976 ± 0,5	96	120	100	100 ± 4	-	F	34	± 3°	± 3°			
						125	126 ± 4			34					
						150	151 ± 5			34					
						200 N	200 ± 5			200					
						200 N	200 ± 5			260 ± 0,5				C	200
						200 H	200 ± 5			275 ± 0,5				240	
						250 N	250 ± 6			317,5 ± 0,5				160	
						250 H	250 ± 6			341,5 ± 0,5				240	
						300 N	300 ± 7			371,5 ± 0,5				160	
						300 H	300 ± 7			398,5 ± 0,5				240	
						350 N	348 ± 7			433,5 ± 0,5				160	
1000	C	1000 ± 25	1204,2 ± 0,5	100	95	100	100 ± 4	-	F	34	± 1°	± 1°			
						125	126 ± 4			34					
						150	151 ± 5			34					
						200 N	200 ± 5			200					
						200 N	200 ± 5			260 ± 0,5				C	200
						200 H	200 ± 5			275 ± 0,5				240	
						250 N	250 ± 6			317,5 ± 0,5				160	
						250 H	250 ± 6			341,5 ± 0,5				240	
						300 N	300 ± 7			371,5 ± 0,5				160	
						300 H	300 ± 7			398,5 ± 0,5				240	
						350 N	348 ± 7			433,5 ± 0,5				160	
400 N	398 ± 8	507,5 ± 0,5	160												
400 H	398 ± 8	515,5 ± 0,5	200												
500 N	496 ± 9	605 ± 0,5	120												
500 H	496 ± 9	637 ± 0,5	160												
600 N	597 ± 12	720 ± 0,5	95												
600 H	597 ± 12	758 ± 0,5	160												

De grootste waarde van -1% / +4% of ±10 mm. The biggest value of -1% / +4% or ±10 mm. De grootste waarde van -1% / +4% of ±10 mm. La plus grande valeur of -1%/+4% ou ±10 mm.

Put verbindingssysteem C / Manhole jointing system C / Regard système d'assemblage C



ATTESTATION

The BENOR certification of the product states that there is, on the basis of a periodic external supervision, a sufficient degree of confidence that the certificate holder is in a position to continuously guarantee the conformity of the product as specified in the reference documents and TRA 95 BENOR (2.0), TRA 95 BENOR (3.0). This datasheet contains the performance characteristics specified by the manufacturer. The datasheet is verified by the certification body.

The certificate holder declares that the product supplier/delivered by it conforms to the datasheet as set out on the delivery note.

By making it available digitally, the producer declares that he agrees with this sheet

Name: René van Veldhoven
Date: 22/01/2024

COPRO

Name: Koen Van Daele
Date: 22/01/2024
Signature:



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