



technical sheet

CERTIFICATION OF

VITRIFIED CLAY PIPE SYSTEMS

BENOR

This technical data sheet was printed on 6/06/2025.
The validity of this technical data sheet can be checked on
<http://extranet.copro.eu/>



TECHNICAL DATA SHEET

QUICK CODE	VERSION	VALIDITY
0021/0011	7.3 - 3/05/2025	CERTIFIED
CERTIFICATE HOLDER	PRODUCTION UNIT	CERTIFICATE NUMBER
EURO SWEILLEM Stiegstrasse 60 D-41379 Brüggen-Bracht +49 2 15 71 28 64 11 info@euro-sweillem.de	SWEILLEM VITRIFIED CLAY PIPES CO. 6 El-Saad Street, Khalafawi Square EG-11614 Cairo +20 2 22 06 50 97 mostafa.sweillem@sweillem.net	BENOR 021/95 Vitrified clay pipe systems

PRODUCT

OFFICIAL NAME	COMMERCIAL NAME
PIPES, FITTINGS AND JOINTS	GLAZED BEND

CAPTION ON THE PRODUCT

BENOR
Production date
Production unit
EN 295-1
PTV 895-1
Nominal size (DN...)
Joint system
Angle

APPLICATION

- | | | |
|--|---|---|
| ☒ SB 250 - versie 3.1 | ☒ PTV 895-1 (3.0) | ☒ EN 295-1 (2013) |
| ☒ CCT/TB 2015 | | |
| ☒ CCT Qualiroutes (2017) | | |
| ☒ SB 250 - versie 4.1 | | |
| ☒ CCT Qualiroutes (2021) | | |
| ☒ SB 250 - versie 4.1 + errata | | |

This product was not checked according to the crossed-out reference documents or does not comply with them.

Use: Drains and sewers.

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

Wooden Box

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 895-1.

Contact at

* **COPRO:** Koen Van Daele +32 2 468 00 95 koen.vandaele@copro.eu
 * **Certificate holder:** Uwe Bormann +49 2 15 71 28 64 Uwe.bormann@euro-sweillem.de
 17

PRODUCT CHARACTERISTICS

GENERAL REQUIREMENTS	ACCORDING	UNIT	VALUE	MIN	MAX
Water absorption	PTV 895-1, Clause 3.4.2	%	-	-	6
Appearance	PTV 895-1, Clause 3.4.3		Glazed	-	-
DIMENSIONAL REQUIREMENTS	ACCORDING	UNIT	VALUE	MIN	MAX
Internal diameter (*)	PTV 895-1, Clause 3.4.4	mm	See drawing	-	-
Length (*)	PTV 895-1, Clause 3.4.5	m	See drawing	-	-
Angle of curvature and radius of bends (*)	PTV 895-1, Clause 3.4.9	°	See drawing	-	-
OTHER REQUIREMENTS	ACCORDING	UNIT	VALUE	MIN	MAX
Chemical resistance (*)	PTV 895-1, Clause 3.4.17	%	-	-	0,25
Abrasion resistance	PTV 895-1, Clause 3.4.19	Class	AH	-	-
Tightness of fittings (*)	PTV 895-1, Clause 3.4.21		-	-	-
<i>Airtightness</i>			Pass	-	-
<i>Watertightness</i>			Pass	-	-
Resistance against high pressure water jetting (*)	PTV 895-1, Clause 3.4.22		Pass	-	-
REQUIREMENTS FOR JOINT ASSEMBLIES	ACCORDING	UNIT	VALUE	MIN	MAX
Watertightness of joint assemblies (*)	PTV 895-1, Clause 3.5.2		-	-	-
<i>Under deflection</i>		mm	See drawing	-	-
<i>Under shear load</i>			Pass	-	-
Increased watertightness of jointed pipes at 1 bar	PTV 895-1, Clause 3.5.3		Pass	-	-
Continuity of invert in joint assemblies (*)	PTV 895-1, Clause 3.5.4		Pass	-	-

Joint interchangeability of pipes and fittings	(*)	PTV 895-1, Clause 3.5.5		Pass	-	-
Jointing system			Class	C, F	-	-
Chemical and physical resistance to effluent	(*)	PTV 895-1, Clause 3.5.6	Class	CH	-	-
Thermal cycling stability of joint assemblies	(*)	PTV 895-1, Clause 3.5.7		Pass	-	-
Long-term thermal stability of joint assemblies	(*)	PTV 895-1, Clause 3.5.8		Pass	-	-

(*) 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

N BENDS 15°, 30°, 45°, 90°				NORMAL STRENGTH							
Nominal size	Joint	Angle	Strength class	Inner ø	Outer ø*	Socket inner ø	Joint spigot outer ø**	Measurement	Length	Weight**	
DN (mm)		α ± Tolerance (Grad)	TKL (-)	d1 ± Tolerance (mm)	d3 ± Tolerance (mm)	d4 ± Tolerance (mm)	d7 ± Tolerance (mm)	e min (mm)	L (mm)	(kg/Pcs)	
125	F	15° ± 3°	-	126 ± 4	159 ± 2	-	-	70	250 ± 25	8	
125	F	30° ± 4°	-	126 ± 4	159 ± 2	-	-	70	250 ± 25	8	
125	F	45° ± 5°	-	126 ± 4	159 ± 2	-	-	70	250 ± 25	8	
125	F	90° ± 5°	-	126 ± 4	159 ± 2	-	-	70	*	9	
150	F	15° ± 3°	-	151 ± 5	186 ± 2	-	-	75	260 ± 25	9	
150	F	30° ± 4°	-	151 ± 5	186 ± 2	-	-	75	260 ± 25	10	
150	F	45° ± 5°	-	151 ± 5	186 ± 2	-	-	75	260 ± 25	10	
150	F	90° ± 5°	-	151 ± 5	186 ± 2	-	-	75	*	11	
200	F	15° ± 3°	200 / 160	200 ± 5	242 ± 3	-	-	85	270 ± 25	14	
200	F	30° ± 4°	200 / 160	200 ± 5	242 ± 3	-	-	85	270 ± 25	15	
200	F	45° ± 5°	200 / 160	200 ± 5	242 ± 3	-	-	85	270 ± 25	17	
200	F	90° ± 5°	200 / 160	200 ± 5	242 ± 3	-	-	85	*	20	
200	C	15° ± 3°	200 / 160	200 ± 5	242 ± 5	260 ± 0.5	263 ± 0.5	85	270 ± 25	14	
200	C	30° ± 4°	200 / 160	200 ± 5	242 ± 5	260 ± 0.5	263 ± 0.5	85	270 ± 25	15	
200	C	45° ± 5°	200 / 160	200 ± 5	242 ± 5	260 ± 0.5	263 ± 0.5	85	270 ± 25	17	
200	C	90° ± 5°	200 / 160	200 ± 5	242 ± 5	260 ± 0.5	263 ± 0.5	85	*	20	
250	C	15° ± 3°	160	250 ± 6	299 ± 6	317.5 ± 0.5	320.5 ± 0.5	85	350 ± 25	24	
250	C	30° ± 4°	160	250 ± 6	299 ± 6	317.5 ± 0.5	320.5 ± 0.5	85	350 ± 25	25	
250	C	45° ± 5°	160	250 ± 6	299 ± 6	317.5 ± 0.5	320.5 ± 0.5	85	350 ± 25	27	
250	C	90° ± 5°	160	250 ± 6	299 ± 6	317.5 ± 0.5	320.5 ± 0.5	85	*	31	
300	C	15° ± 3°	160	300 ± 7	355 ± 7	371.5 ± 0.5	374.5 ± 0.5	85	370 ± 30	34	
300	C	30° ± 4°	160	300 ± 7	355 ± 7	371.5 ± 0.5	374.5 ± 0.5	85	370 ± 30	37	
300	C	45° ± 5°	160	300 ± 7	355 ± 7	371.5 ± 0.5	374.5 ± 0.5	85	370 ± 30	40	
300	C	90° ± 5°	160	300 ± 7	355 ± 7	371.5 ± 0.5	374.5 ± 0.5	85	*	43	

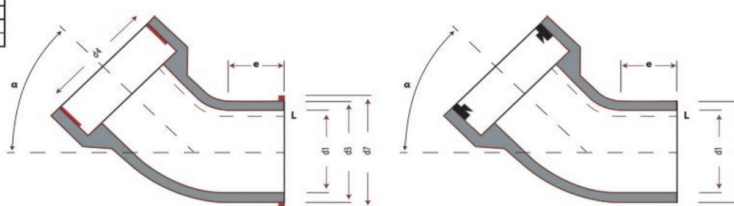
H BENDS 15°, 30°, 45°, 90°				EXTRA STRENGTH							
DN	Joint	Angle	TKL	d1	d3	d4	d7	e min	L	Weight	
200	C	15° ± 3°	240	200 ± 5	254 ± 5	275.0 ± 0.5	278.4 ± 0.5	85	270 ± 25	24	
200	C	30° ± 4°	240	200 ± 5	254 ± 5	275.0 ± 0.5	278.4 ± 0.5	85	270 ± 25	25	
200	C	45° ± 5°	240	200 ± 5	254 ± 5	275.0 ± 0.5	278.4 ± 0.5	85	270 ± 25	28	
200	C	90° ± 5°	240	200 ± 5	254 ± 5	275.0 ± 0.5	278.4 ± 0.5	85	*	32	
250	C	15° ± 3°	240	250 ± 6	318 ± 6	341.5 ± 0.5	344.9 ± 0.5	85	350 ± 25	39	
250	C	30° ± 4°	240	250 ± 6	318 ± 6	341.5 ± 0.5	344.9 ± 0.5	85	350 ± 25	41	
250	C	45° ± 5°	240	250 ± 6	318 ± 6	341.5 ± 0.5	344.9 ± 0.5	85	350 ± 25	45	
300	C	15° ± 3°	240	300 ± 7	376 ± 7	398.5 ± 0.5	401.9 ± 0.5	85	370 ± 30	51	
300	C	30° ± 4°	240	300 ± 7	376 ± 7	398.5 ± 0.5	401.9 ± 0.5	85	370 ± 30	53	
300	C	45° ± 5°	240	300 ± 7	376 ± 7	398.5 ± 0.5	401.9 ± 0.5	85	370 ± 30	57	

* The bend length shall be determined by the manufacturer

** Is not a requirement from PTV 895-1

Joint System C: d3 & d7 Measurements are not covered by PTV 895-1

Maximal deflection	
DN	Deflection mm
100 ≤ DN ≤ 200	80
200 < DN ≤ 500	30
500 < DN ≤ 800	20
DN > 800	10



Datasheet Bends | Quick Code: 0021/0011

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 (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: Uwe Bormann
Date: 7/02/2024

COPRO

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



COPRO NPO - Z.1 Researchpark - Kranenberg 190 - B-1731
Zellik