

## Technical static values BRAWO® UVPox

**BRAWO** SYSTEMS

Stand: 2023-11-29

### Technical values for the stability calculation (BRAWO® UVPox)

Circumference E-modulus 3-min short-term:	DIN EN 1228	2400 N/mm <sup>2</sup>
Circumference E-modulus long-term:	DIN EN 1228	363 N/mm <sup>2</sup>
3-point bending E-modulus short-term:	DIN EN ISO 178	2400 N/mm <sup>2</sup>
3-point bending E-modulus long-term:	DIN EN ISO 178	364 N/mm <sup>2</sup>
3-point flexural strength short-time:	DIN EN ISO 178	22 N/mm <sup>2</sup>
3-point flexural strength long-time:	DIN EN ISO 178	3 N/mm <sup>2</sup>
Compressive strength short-term:	DIN EN ISO 604	39 N/mm <sup>2</sup>
Compressive strength long-term:	DIN EN ISO 604	5,9 N/mm <sup>2</sup>
Attenuation factor:		6,6
Poisson's ratio $\mu$ :		0,36
Security factor $\gamma$ :		1,35

### Achievable wall thicknesses for the BRAWOLINER®

BRAWOLINER®	DN tube	Wall thickness	SN <sup>1)</sup>	(SN > 500 N/m <sup>2</sup> )	Max. GW over pipe base (>1,5m)
BRAWOLINER® DN100	DN 100	3,5 mm	9542 N/m <sup>2</sup>	Yes	n.s.
	DN 120	3,0 mm	3372 N/m <sup>2</sup>	Yes	n.s.
BRAWOLINER® DN125	DN 125	3,5 mm	4781 N/m <sup>2</sup>	Yes	5,0 m
	DN 150	3,0 mm	1700 N/m <sup>2</sup>	Yes	2,5 m
BRAWOLINER® DN150	DN 150	3,5 mm	2727 N/m <sup>2</sup>	Yes	> 1,1 m <sup>3)</sup>
	DN 175	3,0 mm	1061 N/m <sup>2</sup>	Yes	n.s.
BRAWOLINER® DN200	DN 200	3,5 mm	1130 N/m <sup>2</sup>	Yes	0,8 m <sup>3)</sup>
	DN 250	3,0 mm	358 N/m <sup>2</sup>	No	n.s.

BRAWOLINER® XT	DN tube	Wall thickness	SN <sup>1)</sup>	(SN > 500 N/m <sup>2</sup> )	Max. GW over pipe base (>1,5m)
BRAWOLINER® XT DN100	DN 100	4,5 mm	20925 N/m <sup>2</sup>	Yes	5,0 m
	DN 125	4,0 mm	7225 N/m <sup>2</sup>	Yes	5,0 m
BRAWOLINER® XT DN125	DN 125	4,5 mm	10416 N/m <sup>2</sup>	Yes	> 2,5 m
	DN 150	4,0 mm	4113 N/m <sup>2</sup>	Yes	2,2 m
BRAWOLINER® XT DN150	DN 150	4,5 mm	5917 N/m <sup>2</sup>	Yes	> 2,2 m
	DN 175	4,0 mm	2560 N/m <sup>2</sup>	Yes	n.s.
BRAWOLINER® XT DN200/250	DN 200	4,5 mm	2439 N/m <sup>2</sup>	Yes	> 0,8 <sup>3)</sup>
	DN 250	4,0 mm	860 N/m <sup>2</sup>	Yes	n.s.

BRAWOLINER® 3D	DN tube	Wall thickness	SN <sup>1)</sup>	(SN > 500 N/m <sup>2</sup> )	Max. GW over pipe base (>1,5m)
BRAWOLINER® 3D DN 70-100	DN 70	4,0 mm	44522 N/m <sup>2</sup>	Yes	5,0 m
	DN 80	3,5 mm	19154 N/m <sup>2</sup>	Yes	> 2,5 m
	DN 100	3,0 mm	5917 N/m <sup>2</sup>	Yes	n.s.
BRAWOLINER® 3D DN 100-150 <sup>2)</sup>	DN 100	4,0 mm	14468 N/m <sup>2</sup>	Yes	5,0 m
	DN 125	3,5 mm	4781 N/m <sup>2</sup>	Yes	2,5 m
	DN 150	3,0 mm	1700 N/m <sup>2</sup>	Yes	1,1m <sup>3)</sup>
BRAWOLINER® 3D DN 150-225 <sup>2)</sup>	DN 150	4,0 mm	4113 N/m <sup>2</sup>	Yes	2,2 m
	DN 200	3,5 mm	1130 N/m <sup>2</sup>	Yes	0,8 m <sup>3)</sup>
	DN 225	3,0 mm	494 N/m <sup>2</sup>	No	0,5 m <sup>3)</sup>
BRAWOLINER® 3D DN 200-300	DN 200	5,3 mm	4034 N/m <sup>2</sup>	Yes	n.s.
	DN 225	5,0 mm	2348 N/m <sup>2</sup>	Yes	n.s.
	DN 250	4,8 mm	1500 N/m <sup>2</sup>	Yes	n.s.
	DN 300	4,5 mm	706 N/m <sup>2</sup>	Yes	n.s.

<sup>1)</sup> Calculation of nominal ring stiffness (SN) in accordance with DIN EN 1228

<sup>2)</sup> F = Circumference E-modulus 3-min short-term ; e = wall thickness ; d<sub>e</sub> = internal diameter old pipe

<sup>3)</sup> Part of DIBt approval Z-42.3-566

<sup>3)</sup> Value is below the minimum load of h<sub>w,so</sub> = d<sub>a</sub>+0,1m ≥ 1,5 m (DWA-A 143 Part 2)

<sup>4)</sup> DWA-A 143 Part 2

$$SN = \frac{E \cdot e^3}{12 \cdot (d_e - e)^3}$$