

# New Developments at Brandenburger!

## The Brandenburger<sup>plus</sup> liner

*The BB<sup>plus</sup> liner distinguishes itself in comparison to the conventional liners in particular by an **optimised surface structure**. The liner surface is **much smoother and more homogenous**. This improvement can be recognised visually by a higher glossiness.*

The BB<sup>plus</sup> 75 and BB<sup>plus</sup> 120 liners are identical to the current liners ADV 75 and ADV 120 in regards to the applied materials, and the mechanical characteristics are the same.

The installation of the BB<sup>plus</sup> liner is done with greater installation pressures; otherwise, nothing changes in the easy and conventional handling. The **significantly improved surface quality** was achieved by process optimisation and procedural changes. In comparison to other liner manufacturers, Brandenburger does not make use of an additional fabric layer here, so that the **customary high curing speeds** can be run as usual.

The smooth and even surface of the liner offers much less contact surface for the sewage flowing through. Thus, the liner becomes **much more resistant and longer-lasting** and is even better protected against damages.

The BB<sup>plus</sup> liner has successfully passed the Quik suitability examination for Switzerland, the Hamburg test as well as the high pressure flushing trial acc. to DIN 19523 at the IKT. The DIBt approval has also already been issued under the number Z-42.3-449.

The Research & Development as well as the Technical Application department of Brandenburger Liner GmbH & Co. KG have done a tremendous job. In cooperation with their own sewer rehabilitation company and some partners, many test runs and experiments were carried out and changes intensely tested. Thus, great advances were achieved and the **improved and high-grade BB<sup>plus</sup> liner** was developed. It will be available at the **same prices** as before!

The BB<sup>plus</sup> liner will not remain the only product revision at Brandenburger. Further innovations are planned and in progress and Brandenburger thereby confirms its position as technology leader in the GFRP liner field.



◀ The smoother surface of the liner is impressive.

### Contact and additional information:

Brandenburger Liner GmbH & Co. KG  
 Frau Dipl.-Wirtschaftsing. Jacqueline  
 Grüttner (Sales management Europe)  
 Tel. +49 63 41 / 51 04-279  
 E-mail: [j.gruettner@brandenburger.de](mailto:j.gruettner@brandenburger.de)



## Technical Specifications

**Dimensions** Circular profiles DN 150 – DN 1000  
Egg-shaped profiles 200/300 – 800/1200  
Special profiles

**Wall thicknesses**  
Without peroxide 3.5 to 9.8 mm  
With peroxide higher wall thicknesses are possible, too

Liner characteristics	Standard	ADV 75	ADV 120
Density	ISO 1183	1.50 g/cm <sup>3</sup>	1.65 g/cm <sup>3</sup>
Annular gap of liner radius		0.43 %	0.43 %
Short-time tensile bending stress	ISO 178	180 N/mm <sup>2</sup>	230 N/mm <sup>2</sup>
Long-time tensile bending stress		95 N/mm <sup>2</sup>	170 N/mm <sup>2</sup>
Long-time reduction ratio (50 years)	EN 761	1.78	1.33
Short-time modulus of elasticity	ISO 178	7 500 N/mm <sup>2</sup>	10 800 N/mm <sup>2</sup>
Long-time modulus of elasticity		4 200 N/mm <sup>2</sup>	8 100 N/mm <sup>2</sup>

### Approvals & successfully passed tests

DIBt approval has been issued under the number Z-42.3-449  
High pressure flushing trial acc. to DIN 19523  
Hamburg test  
QuiK suitability examination for Switzerland

