

# BRAWO<sup>®</sup> SYSTEMS

## BRAWOLINER<sup>®</sup>



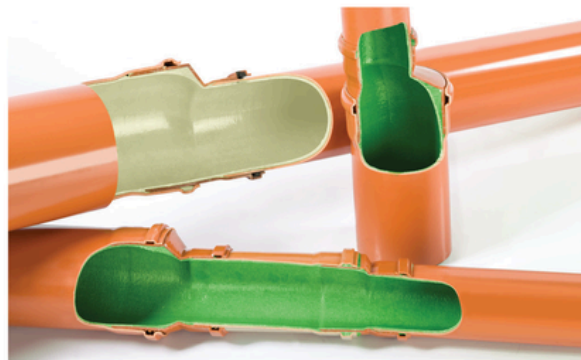
BRAWO<sup>®</sup> SYSTEMS offers a seamless textile liner for the rehabilitation of small diameter pipes. The BRAWOLINER<sup>®</sup> is extremely flexible due to the special loop construction. This makes it the ideal rehabilitation solution for defective pipes with bends of up to 90° and up to two changes in dimension. This liner offers an economic and environmentally-friendly alternative to open construction work!



### **BRAWOLINER<sup>®</sup>**

The standard for repairing defective drains

- ➔ From 2" to 10" (DN 50 to DN 250)
- ➔ Bends of up to 90°
- ➔ One dimensional change



### **BRAWOLINER<sup>®</sup> 3D**

Liner for changing diameters

- ➔ From 3" to 4" (DN 70 to DN 100)
- ➔ From 4" to 6" (DN 100 to DN 150)
- ➔ From 6" to 8" (DN 150 to DN 225)
- ➔ From 8" to 12" (DN 200 to DN 300)
- ➔ From 12" to 16" (DN 300 to DN 400)
- ➔ Bends of up to 90°



### **BRAWOLINER<sup>®</sup> XT**

Rehabilitation of structurally impaired pipes

- ➔ From 4" to 10" (DN 100 to DN 250)
- ➔ Significantly higher stiffness
- ➔ Bends of up to 90°
- ➔ One dimensional change



### **BRAWOLINER<sup>®</sup> HT (XT, 3D)**

For domestic sewer rehabilitation

- ➔ From 2" to 10" (DN 50 to DN 250)
- ➔ Bends of up to 90°
- ➔ Up to two changes in dimension
- ➔ Warm curing possible at higher temperatures with water or steam

# BRAWO® Connection Collars

The rehabilitation of defective pipe connections represents a huge challenge. BRAWO® SYSTEMS supplies a tightly fitting solution for 4" to 6" main pipes and 3" to 6" branch connections.

## **BRAWOLINER® Connection Collars**

- Flexible BRAWOLINER® material
- Optimal adjustment to the pipe run after the connecting piece
- Tight and particularly stable connection
- Ideal in combination with BRAWOLINER® rehabilitation



# BRAWO® Installation Aid

## **Preliner**

Preliners are used as an outer film between the liner and the old pipe if bonding with the old pipe is not required.

- From 4" to 12" (DN 100 to DN 300)
- Flexible film tube made of PE
- Material thickness approx. 150 µm
- Can be used for bends up to 90°

## **Calibration Hoses**

Calibration hose is used as a support tube for installing the liner in the pipe being rehabilitated. Rehabilitation with open end is recommended where there is no possibility to open the sealed liner or if just a section of the pipe needs rehabilitation.

- From 3" to 16" (DN 80 to DN 400)
- Calibration hoses for various temperature ranges
- PVC material with PES fabric insert
- Good bend flexibility up to 45°

## **Airbagliner**

To make steam curing even easier and faster, BRAWO® SYSTEMS offers the AIRBAGLINER®.

- From 2" to 16" (DN 50 to DN 400)
- Very high flexibility and an extreme sliding capacity
- Simplifies the inversion process even in pipes with small diameters and changes of direction
- Heat-resistant up to 150 °C, can be removed in less than 60 minutes
- The retraction process is made much easier by the high sliding capacity
- Pressure resistance of up to 2 bar
- Particularly suitable for negotiating bends
- Can be reused up to 6 times

# BRAWO® Resins

The resins of BRAWO® SYSTEMS are especially developed for the rehabilitation of sewer systems. The BRAWO® epoxy resins will harden and cure at both ambient and higher temperatures. The application of heat considerably reduces the curing time. For fast curing with light, the epoxy resin „BRAWO® UVPox US“ must be used.

These resins have been optimized for use with the BRAWOLINER® and have outstanding properties:

- High abrasion resistance
- Solvent-free
- Excellent mechanical properties
- High chemical resistance
- Not harmful to groundwater  
(Examined by the hygiene institute of the Ruhr area –  
institute of environmental hygiene and toxicology,  
Gelsenkirchen, GERMANY)



## Resins for steam / hot water / ambient curing



### BRAWO® I US

- This rapidly curing resin for underground pipes is particularly suitable for the rehabilitation of shorter pipes of up to approx. 50 ft in length



### BRAWO® III US

- Thanks to the longer working time, the BRAWO® III US is suitable for the rehabilitation of longer pipe sections or large pipe diameters



### BRAWO® SRR US

- For particularly economic rehabilitation of pipe connections or short pipe sections



Bulk options from  
3 lbs to 2200 lbs



## Working and curing times of BRAWO® epoxy resins

	BRAWO® I US	BRAWO® III US	BRAWO® SRR US
Working time at 59 °F	50 min.	3.5 hr	30 min.
Curing time 50 °F	13 hr	24 hr	4 hr
Curing time 122 °F	100 min.	220 min.	30 min.
Curing time 158 °F	45 min.	140 min.	not recommended

## Light curing resin



BRAWO® UVPox US is the first pigmented light curing epoxy resin optimized to work with the BRAWOLINER®.

- Positive fit in the old pipe with no penetration or infiltration of water behind
- High installation reliability due to extremely long processing time
- Optical check using colored resin
- Targeted, fast curing
- Styrene-free and low-odour
- Curing with our light curing systems (UV or LED-light)



### BRAWO® UVPox US

- For more efficient light curing in buildings and on properties

**GIVE US A CALL TODAY!**



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