

geboliquid

**LIQUID SEALANT FOR THE INTERNAL SEALING
OF THE WATER-BEARING PARTS
OF HEATING SYSTEMS AS WELL
AS CLEANING AND CARE PRODUCTS**



THE COMPLETE PRODUCT RANGE



MICRO

P. 4

suitable for sealing gas-fired boiler systems with a water loss of up to **10 l** per day



S

P. 4

suitable for sealing heating systems with a water loss of up to **200 l** per day



L

P. 5

suitable for sealing heating systems with a water loss of up to **500 l** per day



XL

P. 5

suitable for sealing heating boilers with a water loss of up to **800 l** per day



CLEAN

P. 6

Heating cleaner, removes rust, limescale and sludge deposits in heating systems as part of maintenance activities



PROTECT

P. 6

Corrosion protection for heating systems, prevents damage due to corrosion, and also prevents deposits



ACCESSORIES

P. 7

Filling pump for 2 l container

USEFUL INFORMATION REGARDING THE LIQUID SEALANTS

- Reliable sealing of heating systems without leak detection and chiseling work
- Two component liquid sealant based on silicate with fibre components
- Crystallises on contact with CO²
- Suitable for sealing of gas-fired boiler systems, heating boilers and heating pipes containing water (including underfloor heating systems)
- Permanently and quickly seals leaks from inside
- It is possible to use the sealant without switching off the heating system
- Suitable for steel, iron, cast, copper and plastic materials
- Pressure-resistant up to 10 bar, and temperature-resistant up to 1200 °C
- Mixing ratio 1:100 (1 l of sealant to 100 l of water)
- Note: Gebo Liquid sealants must not be used in systems filled with frost protection and corrosion protection agents

AREAS OF APPLICATION

GEBO LIQUID SEALANT

Typical areas of application: Sealing of water leaks in:

- Heating systems
- Heating boilers
- Gas-fired boiler systems
- Condensing systems

} Liquid Micro

GEBO LIQUID CARE AGENT – LIQUID CLEAN

Typical areas of application: Cleaning of components in heating systems made of the following materials:
Steel, cast materials, aluminium and plastic
(also for underfloor heating systems)

GEBO LIQUID CARE AGENT – LIQUID PROTECT

Typical areas of application: Corrosion protection for components in heating systems made of the following materials:
Steel, iron, aluminium and copper
(also for underfloor heating systems)

GENERAL INFORMATION FOR HANDLING GEBO LIQUID PRODUCTS

- The liquid products are not suitable for consumption and children must not come into contact with them
- All liquid products are **not** suitable for use in drinking water pipes, gas pipes or wastewater pipes
- Liquid products have an unlimited shelf life if stored frost-free
- geboliquid sealants are not suitable to seal leaks in plastic-coated copper pipes



MIXING RATIO
1 : 100

MICRO		For leaks on gas-fired boiler systems with a water loss of up to 10 l/day
Article no.	Container [Litres]	
75012	2	

INSTRUCTIONS FOR USE FOR GEBO LIQUID MICRO:

1. Determine the volume of water present in the heating system – see table page 299 „water volume in heating systems“.
2. Filters and strainers must be removed.
3. Bring gas-fired boiler system to operating temperature (60 °C). If the operating temperature of 60 °C is not achieved, the duration of the sealing process may extend accordingly (by several days).
4. It is essential to ensure that the circulating pump operates continuously during the sealing process, because the sealant can only reach the damaged area by circulation.
5. Fully open thermostatic valves.
6. **Shake Liquid Micro well** and add undiluted via the heating filling valve into the heating circuit (1 litre of sealant to 100 litres of water) – see page 239 „dosing instruction“.
7. Thoroughly vent circulating pumps and radiators.
8. After a minimum of 24 hours, the gas-fired boiler system can be placed back into normal operation (filters and strainers must be reinstalled).
9. In order to prevent undesirable crystallisation, all working equipment and objects, which have come into contact with the liquid sealants, must be rinsed thoroughly with water.
10. After 4 weeks the gas-fired boiler system must be flushed and filled with fresh water



MIXING RATIO
1 : 100

S		For leaks on heating systems with a water loss of up to 200 l/day
Article no.	Container [Litres]	
75022	2	

INSTRUCTIONS FOR USE FOR GEBOLIQUEID S:

1. Determine the volume of water present in the heating system – see table page 299 „water volume in heating systems“.
2. Filters and strainers must be removed.
3. Bring heating system to operating temperature (60 °C). If the operating temperature of 60 °C is not achieved, the duration of the sealing process may extend accordingly (by several days).
4. Fully open all thermostatic valves. It is essential to make sure that the circulating pump operates continuously during the sealing process, because the sealant can only reach the damaged area by circulation.
5. **Shake Geboliquid S well** and add undiluted via the heating filling valve into the heating circuit (1 litre of sealant to 100 litres of water) – see page 239 „dosing instruction“.
6. Thoroughly vent circulating pumps and radiators.
7. Depending on the ambient humidity at the leak, the heating system can be placed back into normal operation after a minimum of 24 hours (reinstall filters and strainers).
8. In order to prevent undesirable crystallisation, all working equipment and objects, which have come into contact with the liquid sealants, must be rinsed thoroughly with water.
9. The sealant can remain in the system

L	For leaks on heating systems with a water loss of up to 500 l/day	
Article no.	Container [Litres]	
75032	2	

INSTRUCTIONS FOR USE FOR GEBOLIQUED L:

1. Determine the volume of water present in the heating system – see page 299 "water volume in heating systems".
2. Filters and strainers must be removed.
3. Bring heating system to operating temperature (60 °C). If the operating temperature of 60 °C is not achieved, the duration of the sealing process may extend accordingly (by several days).
4. Fully open all thermostatic valves. It is essential to make sure that the circulating pump operates continuously during the sealing process, because the sealant can only reach the damaged area by circulation.
5. **Shake Geboliquid L well** and add undiluted via the heating filling valve into the heating circuit (1 litre of sealant to 100 litres of water) – see page 8 „dosing instruction“.
6. Thoroughly vent circulating pumps and radiators.
7. Depending on the ambient humidity at the leak, the heating system can be placed back into normal operation after a minimum of 24 hours (reinstall filters and strainers).
8. In order to prevent undesirable crystallisation, all working equipment and objects, which have come into contact with the liquid sealants, must be rinsed thoroughly with water.
9. The sealant can remain in the system.



MIXING RATIO
1 : 100

XL	For leaks on heating boilers with a water loss of up to 800 l/day	
Article no.	Container [Litres]	
75042	2	

INSTRUCTIONS FOR USE FOR GEBOLIQUED XL:

1. Determine the volume of water present in the heating boiler – see page 299 "water volume in heating systems".
2. Shut off the connecting lines from the heating boiler to the radiators, by creating only a small circuit.
3. Filters and strainers must be removed.
4. **Shake Geboliquid XL well** and add undiluted via the heating filling valve into the heating boiler (1 litre of sealant to 100 litres of water) – see page 45 „dosing instruction“.
5. Bring boiler to an operating temperature of min. 60 °C. The sealant must remain in the boiler or in the small circuit for 4-5 hours at min. 60 °C. If the operating temperature of 60 °C is not achieved, the duration of the sealing process may extend accordingly (by several days). It is essential to ensure that the circulating pump operates continuously during the sealing process, because the sealant can only reach the damaged areas by circulation.
6. Fully open thermostatic valves.
7. Open the connecting lines to the radiators once more.
8. Thoroughly vent circulating pumps and radiators.
9. In order to prevent undesirable crystallisation, all working equipment and objects, which have come into contact with the liquid sealants, must be rinsed thoroughly with water.
10. Once the sealing process is complete, reinstall strainers and filters.
11. The sealant can remain in the system.



MIXING RATIO
1 : 100



MIXING RATIO
1 : 100

CLEAN	Heating cleaner for heating systems, removes rust, limescale and dirt deposits
Article no.	Container [Litres]
75052	2

OPERATING INSTRUCTIONS FOR GEBO LIQUID CLEAN:

1. Fully open thermostatic valves.
2. Determine the volume of water present in the heating system – see page 299 „water volume in heating systems“.
3. Drain the water present in the heating system.
4. Fill the heating system with fresh water and add Liquid Clean (1 litre of liquid clean to 100 litres of water) – see page 8 „dosing instruction“.
5. During the soaking time, the temperature of 50 °C should not be exceeded (circulating pump must remain in operation).
6. After 2-4 days, fully drain the heating system.
7. Flush the heating system and fill with fresh water.

Note:

Liquid Clean counteracts the effect of liquid sealants, and therefore must not be used **at the same time!** Leak sealing repairs which have already been completed, however, are not affected by the use of Liquid Clean. It is recommended to install a strainer in the return of the system, to catch the sludge which is released. In the case of very dirty systems, the cleaning process may need to be repeated.



MIXING RATIO
1 : 100

PROTECT	Corrosion protection for heating systems
Article no.	Container [Litres]
75062	2

- Hot water treatment according to VDI guideline 2035
- Corrosion inhibitor for steel, aluminium and copper-containing materials
- Prevents limescale formation in heating systems
- Compatible with frost protection agents
- Application range, pH 8.0-8.5
- non-toxic
- Equally suitable for hard and soft water

OPERATING INSTRUCTIONS FOR GEBO LIQUID PROTECT:

1. Determine the volume of water present in the heating system – see page 8 „water volume in heating systems“.
2. Start-up the circulating pump, in order to mix Gebo Liquid Protect within the heating circuit.
3. **Shake Gebo Liquid Protect well** and add via the heating filling valve into the heating circuit (1 litre of sealant to 100 litres of water) – see page 8 „dosing instruction“.
4. Immediately flush the filling pump thoroughly with water, to avoid undesirable mixing when pump is subsequently used.

Note:

An annual inspection of the still sufficiently existing corrosion protection must be performed. Gebo Liquid Protect is non-volatile and not flammable. Suitable for aluminium materials.

**MANUAL PUMP/
FILLING PUMP****(compatible with all 2 l containers,
suitable up to 1.5 bar)**

Article no.

75072**WATER VOLUME IN HEATING SYSTEMS:**

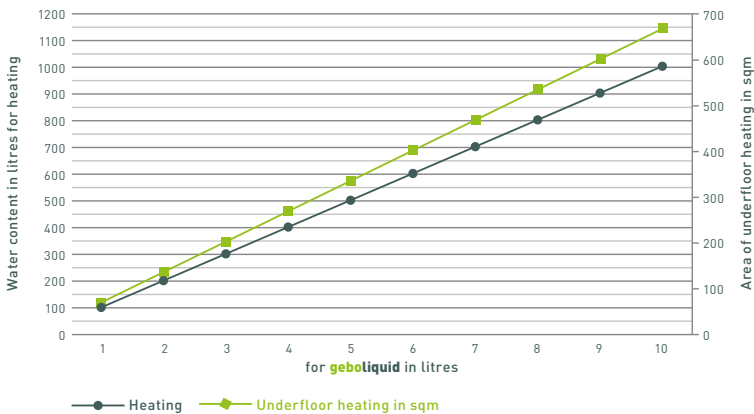
The manufacturers' specifications must be used to determine the volume of water in radiators and panel heaters.

STEEL PIPES

DN	Nominal pipe diameter mm (inches)	Water content Litres / m
10	17.2 (3/8")	0.12
15	21.3 (1/2")	0.20
20	26.9 (3/4")	0.37
25	33.7 (1")	0.58
32	42.4 (1 1/4")	1.02
40	48.3 (1 1/2")	1.38
50	60.3 (2")	2.21

COPPER PIPES

DN	Nominal pipe diameter x wall thickness (mm)	Water content Litres / m
8	10 x 1.0	0.05
10	12 x 1.0	0.08
12	15 x 1.0	0.13
15	18 x 1.0	0.20
20	22 x 1.0	0.31
25	28 x 1.0	0.53
32	35 x 1.2	0.84

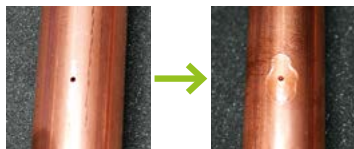
DOSING INSTRUCTION FOR GEBOLIQUID (Table can be extended as required)

WHAT IS GEBO LIQUID ?

Gebo Liquid is a two-component sealant based on silicates with fibre components for reliable sealing of parts containing water within heating systems without requiring leak detection and repair work.

HOW IT WORKS

Gebo Liquid reacts with the CO_2 in the ambient air at the point of leakage, and forms a crystalline structure there.



This „mechanical“ sealing leads to a permanent seal within the pipelines.

AREA OF APPLICATION

SEALING OF WATER LEAKS IN:

Heating systems (including underfloor heating systems)

Heating boilers

Gas-fired boiler systems } geboliquid MICRO

Condensing systems

SUITABLE FOR

- Steel
- Iron
- Stainless steel
- Copper
- Plastics (e.g.: composite plastic pipes)
- do not use for plastic-coated pipes!

The GeboLiquid sealants are pressure-resistant up to 10 bar and temperature-resistant up to 1200 °C.

WHAT MUST BE NOTED?

Precise dosing is required for properly applying Gebo Liquid sealants!**More information regarding application:**

- The filters present in the heating system must be removed before applying the sealant
- The thermostatic valves must be fully opened.
- The heating system must be completely and carefully vented
- The circulating pump must be activated, so that circulation of the sealant can be ensured
- The temperature must not drop below 60 °C, so that the sealing process can take place properly

All information regarding dosing, determining water volume, and application can be found on the labels on the canister!

WORKING STEPS FOR GEBO LIQUID



1. Determine water loss



2. Select sealant



3. Determine water volume of the heating system



4. Set the dosing of the sealant



5. Comply with mixing ratio



6. Fill system