

Strata Bond W is a fast-reacting 2-component polyurethane resin with high strength. It is suitable for soil/rock consolidation, gas and water sealing. Strata Bond W is 100% solid, i.e., solvent- and phthalate-free. The resin is environmentally friendly and has no restrictive or toxicological effects on the microorganism. Easily biodegradable. Strata Bond W uses any existing water in the reaction process to foam the mixed resin and seal against inflowing water.

Advantages

- Fast reacting resin
- The resin reaction can be adapted to the situation with Add Fast and /or Add Thix
- The system is 100 % solid (solvent and phthalate free)
- Well balanced and adjusted viscosities of the individual components
- Low initial viscosity
- Easy miscibility even in different temperature ranges
- Excellent mechanical properties
- Good adhesion to substrates even under wet and dry conditions
- Low environmental impact

Components

	Unit	Strata Bond W Comp. A	Strata Bond W Comp. B
appearance	-----	Colourless liquid	Dark brown liquid
Density at 20 [°C]	[g/cm³]	1.02±0.04	1.23±0.04
Viscosity at 25 [°C]	[mPa*s]	300±50	220±50
Viscosity at 10 [°C]	[mPa*s]	730±50	850±50

Material Properties

	Unit	25 [°C]	10 [°C]
Foam factor	-----	1.0 - 1.1	1.0 - 1.1
Viscosity after mixing (A + B)	[mPa*s]	280	800
Start Time	[s]	5-10	25-35
End of reaction	[s]	30-40	70-80
Reaction temperature	[°C]	< 150	< 130
Compressive strength*	[MPa]	> 80	> 80
Bending strength*	[MPa]	> 80	> 80

*Results obtained under laboratory conditions.

Environmental

Test	Procedure	Result
Influence of the resin on the groundwater	DIN 19631 DIBt Berlin	No restrictive or toxicological effects on the micro-organism. Easily biodegradable. Aromatic amines - all values below the respective limits of determination.
Drinking water tests	KTW Richtlinie	Values below the prescribed limit values of the KTW Directive. Aromatic amines - all values below the respective limits of determination

Application

The **Strata Bond W A component** and **Strata Bond W B component** are pumped with two-component pumps commonly used in mining and tunneling with a volume ratio of 1:1. It is recommended to use a static mixer type M-10x360 (part no. M-10x360) or equivalent. The components must be protected against moisture, moist skin formation and other pump-damaging particles as well as other precipitations must not enter the pumps.

Mixing-ratio of the components:

	Strata Bond W Comp. A	Strata Bond W Comp. B
volumetric [v/v]	100	100
gravimetric [m/m]	100	120

When components A and B are mixed with a different mixing ratio, the response time and mechanical properties may differ significantly from the specifications above.

Cleaning of the Injection Pump and Accessories

The cleaning of the application equipment must be carried out thoroughly with great attention. Pumping system, valves, mixing equipment and hoses must be cleaned immediately after the injection process has been completed. Thoroughly rinse the components that have not yet been reacted with a gasket-friendly cleaner, change the cleaning liquid several times during each cleaning process and collect it for disposal. Reacted resin can only be etched and mechanically removed. To be sure read the technical description of the injection pump and the data sheet of the cleaner used, carefully. Please refer to the pump manufacturer's operating manual for detailed instructions.

Packaging

Packaging	Component	Weight [kg]	Article No.:
Plastic canister 25 [l]	A	25	SB-W-A-25P
	B	30	SB-W-B-25P
Metal container 20 [l]	A	20	SB-W-A-20M
	B	24	SB-W-B-20M
Steel drum 200 [l]	A	200	SB-W-A-200M
	B	240	SB-W-B-200M
IBC container 1,000 [l]	A	1,000	SB-W-A-IBC
	B	1,200	SB-W-B-IBC

Other forms of packaging available on request

Storage and Transport Conditions

Both resin components are delivered in canisters - made of plastic or sheet metal - (other packaging is possible on request). The recommended storage in dry and airy rooms, at a storage temperature of 10[°C] to 30[°C]. The guaranteed shelf life from the date of manufacture is 12 months for **Strata Bond W A component** and **Strata Bond W B component** only in unopened original packaging.

Tests and Approvals

The system meets the German mining approval standards according to the Arnsberg District Government Department 6 Mining and Energy in NRW requirements.

1. "Examination of an elution behaviour of the polyurethane-based injection resin" ecotoxicological effects investigation on groundwater. MFPA Leipzig GmbH, August 2018.
2. Reaction temperature and flash point. DMT GmbH, June 2018.
3. Material consistency and self-ignition determination. DMT GmbH, July 2018.
4. Determination of compressive, flexural and tensile strength. Central Mining Institute, January 2018
5. Testing of hygiene in mining and evaluation of two-component systems for rock hardening in accordance with § 10 of the Mining Ordinance for Hard Coal Mines (BVOST) and § 18 of the Mining Ordinance for Ore, Salt Mining and For Rock and Earth Operation (BVOESSE) in conjunction with DIN 22100. Hygienic Institute, Gelsenkirchen, August 2018.
6. "Investigation of the elution behaviour of a 2-component resin" KTW guideline drinking water tests. MFPA Leipzig GmbH, Germany, October 2018.

Environment and Safety Instructions

Empty containers can be disposed of within Germany via local disposal companies, subject to their terms and conditions. The material will not be taken back to the production site or to the distribution depots. Please refer to the safety data sheets for information on the disposal of the remaining materials, as well as of the empty containers.

During application of our products, the applicator is obliged to comply with the applicable protective regulations and with the safety data sheets of **DSI Schaum Chemie**. According to Annex II of EU Regulation 1907/2006, the safety data sheets must be available to all persons responsible for occupational safety, health protection and handling of the materials. Processing and cleaning of the equipment may only be carried out in protective clothing with safety gloves and safety goggles. According to current knowledge, the use of a suitable skin protection cream is recommended. Skin contamination must be cleaned with soap and water. If splashes get into the eye, it must be immediately rinsed with water and a doctor must be consulted without delay. The material must not be allowed to enter the sewage system or the ground in unmixed conditions.

Liability Disclaimer

The information in this leaflet is based on our knowledge and experience at the time of printing, as stated above. Therefore, please make sure that you always use the latest version hereof. The general description of product use in this leaflet cannot take into consideration special conditions and circumstances that may arise in individual cases. Therefore, please check our product in each case for its suitability for the specific application before use. The application use and processing of our product are naturally beyond our control. They are therefore exclusively the responsibility of the customer, as is the processing result achieved on the basis of our technical application information. The applicator is responsible for checking whether the product in question is suitable for the specific application in each case of use.

All information contained in this leaflet is provided for informational purposes only and is subject to change without notice. Since the producer cannot anticipate or control the conditions under which this information and its products will be used, each user is responsible for reviewing the information in the specific context of the intended application.

No statement in this leaflet constitutes a warranty in the legal sense.