



# Silicate Resin - W1 Technical Data Sheet

Components	Density [g/cm <sup>3</sup> ] (t = 23±2 °C)	Properties	Pot life / Product feature
<b>"A" component: Na-waterglass</b> (M≈2)	1,59±3%	fast-setting, hard, high-strength, chemical resistant, abrasion resistant	~15 minutes, for winter use, Short-Liner (patch repair)
<b>"B" component: isocyanate-containing blend</b>	1,22±3%		

## APPLICATION FIELDS OF THE PRIMELINER SILICATE RESIN PRODUCTS

Depending on the composition and mixing ratio, workability and hardening times can be chosen in a wide range. PrimeLiner Silicate resins are two-component (polyisocyanate - polysilicic acid) systems for the following construction works:

- Water insulation of engineering structures (e.g. pools, containers or secondary containers made of concrete or brick).
- Rehabilitation of industrial and communal wastewater facilities (e.g. surface protection of manholes, no-dig repair of sewer pipes with short or long packer).
- Thick, chemical resistant coatings on technical structures, such as metal or concrete containers.
- Glass fiber reinforced composites for various application purposes.

Characteristics of the resin components	Characteristic value
Flammability class of the "A" component (Na-waterglass)	non-flammable
Flammability class of the "B" components	flammable
Enclosed space flash point of "B" components	> 170 °C
Open space flash point of "B" components	> 200 °C
Non-volatile content of the "A" component (Na-waterglass) at 105 °C	≤ 50 m/m%
Non-volatile content of the "B" component at 105 °C	≥ 80 m/m%





Essential characteristics of the hardened resin	Performance
Compressive strength	≥ 40 MPa
Flexural strength	≥ 20 MPa
Adhesion strength on C16 concrete surface	≥ 3,2 MPa (concrete failure)
Adhesion strength on non-glazed vitrified clay surface	≥ 1,5 MPa
Adhesion strength on hard PVC surface	≥ 1,5 MPa
Linear shrinkage	≤ 0,1%
Abrasion resistance (Taber-Abraser)	≤ 75 mg
Surface water uptake	≤ 24 g/m <sup>2</sup> •day
Frost resistance* (25 frost-thaw cycles)	resistant
Thermal resistance* in wet and dry air (at +80 °C)	resistant
Water vapor diffusion resistance, 5 mm layer thickness	14•10 <sup>7</sup> – 18•10 <sup>7</sup> m <sup>2</sup> •s•Pa/g
Water tightness (1 m water column, 24 hours)	watertight
<p><b>Chemical resistance*</b>            tested for: communal waste water, 10% NaOH, 10% HCl, 10% H<sub>2</sub>SO<sub>4</sub>,            saturated NaCl, 5% Na-hypochlorite, crude oil, vegetable oil.            * The change of the tested properties may be maximum ±20% compared            to the original condition.</p>	resistant

## MANUFACTURER'S DECLARATION

**The performance of the resin lining and coating systems is valid if the following conditions are provided:**

- The treated surface must be clean, and free of dust, oil, fat and loose particles.
- During proceeding, the material temperature shall be at least 5 °C, and the ambient temperature at least -5 °C.
- The instruction of the technical guidebook must be followed.
- The hardened resin coatings can be loaded in a temperature range between - 15° and +80° C.
- The hardened resin coatings do not produce emissions that are harmful for the health or for the environment.

