

Technical Data Sheet

WILLKAT® LV

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Organosilicate System, non-foaming two-component injection resin

1. Application

WILLKAT LV is a quick and solid curing 2-component silicate injection resin. The system is used for rock consolidation and sealing of water ingress.

2. Component characteristics*

		WILLKAT® LV -A (Resin)	WILLKAT® LV -B (Catalyst)
Form		colourless, clear liquid	brown liquid
Viscosity at 25°C	mPa*s	250 ± 50	170 ± 50
Density at 20°C	g/cm ³	1.45 ± 0.05	1.14 ± 0.02

WILLKAT LV -A is a special aqueous sodium silicate with additives.

WILLKAT LV -B is a modified polyisocyanate.

3. Reaction data*

Component mixing ratio

	WILLKAT® LV -A (Resin)	WILLKAT® LV -B (Catalyst)
by volume	100	100
by weight	100	79

A change in the mixing ratio can change the reaction times and the mechanical data.

Reaction profile at:	15°C	20°C	25°C
Flow time [seconds]	80 ± 10	60 ± 10	55 ± 10
Setting time [seconds]	100 ± 15	80 ± 10	70 ± 10
Foam factor	1	1	1
Reaction temperature [°C]	88	91	96

* The indicated data are laboratory values.

4. Physical data**

		30 min	1 h	3 h	5 h	1 d	2 d	7 d
Adhesive strength, 3 mm crack	[MPa]	2.8	4.1	4.0	3.9	3.4	3.3	4.0

**The indicated values are laboratory values with a scattering of ± 15%

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Flexural strength	[MPa]	14
E- modulus	[MPa]	384
Compressive strength	[MPa]	38
Shore D		60

5. Processing conditions and storage

Before pumping component WILLKAT® LV -A (Resin) must be stirred thoroughly. The components WILLKAT® LV -A (Resin) and WILLKAT® LV -B (Catalyst) shall be pumped using dual component pump commonly used in the mining and tunneling industry with a volumetric ratio 1:1. The shelf life of the product is 12 months after production date. The product should be stored in a dry place at the temperature between 10°C and +30°C. Improper store will shorten shelf life.

Notes

Data presented in this information have been obtained in model conditions. The results obtained when operating in other conditions can be slightly different from published. Safety Data Sheet is available for the product.