

TEST REPORT

TÜV SÜD Industrie Service GmbH

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Report No.: **20-1317-1_EN**

Client: **KEIMFARBEN GmbH**
Keimstraße 16
86420 Diedorf

Date of receipt: 27.04.2020

Name of product: **KEIM Innostar**

Test Standards: Visual assessment of disinfectant resistance according to the following standards:
- DIN EN ISO 4628-1: 2004-01
- DIN EN ISO 4628-2: 2004-01
- DIN EN ISO 4628-4: 2004-01
- DIN EN ISO 4628-5: 2004-01

Testing period: 05.05.2020 – 19.05.2020

Results: As part of the test carried out, no visual changes with the disinfectants used were found.

Unless otherwise stated, assessments are made without considering the measurement uncertainty.

Date: 2020-06-23

Our reference:
IS-USL-MUC/ HS
Bericht 20-K1317-1_EN.docx

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The test results refer exclusively
to the units under test.

(Dipl.-Ing. Eva Takacs)
Deputy head of department

(Dipl.-Ing. (FH) Holger Struwe)
Project leader building products



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1 Product information

Type of product: Sol silicate paint for indoor
Sample name: KEIM Innostar
Place of production: 86420 Diedorf
Batch number: 12202
Production date: 03/17/2020
Sampler: Mr. Heinrich (Keimfarben)
Sample description: 2.5 l original bucket

2 Test method

The paint was applied to 5 cleaned glass plates (15.3 cm * 23.0 cm) with a film applicator (200 µm wet layer thickness). After drying for 1 day, the plates were placed vertically on the walls in the air-conditioned laboratory. In the following, a plate was not treated with disinfectants as a reference sample.

The 4 other plates were sprayed daily with disinfectant solutions of different compositions until drops formed. After each 24 hours of surface disinfectant drying, the plates were cleaned with water. The daily treatment was carried out over 10 working days.

The following disinfectants and application concentrations were used:

1. **Schülke perform** as a representative of disinfectants based on active oxygen. A 2% solution was used. This corresponds to the highest dosing recommendation for surface disinfection.
2. **Schülke antifact AF (N)** as a representative of disinfectants based on quaternary ammonium compounds. A 2% solution was used. This corresponds to the highest dosing recommendation for surface disinfection.
3. **Incidin Liquid** as a representative of disinfectants based on 1-propanol and 2-propanol. An undiluted solution was used.
4. **Incidin Rapid** as a representative of disinfectants based on glutaral, benzalkonium chloride and didecyl dimethyl ammonium chloride. A 2% solution was used. This corresponds to the highest dosing recommendation for surface disinfection.

The disinfectants were filled into pump sprayer and used in this way.

The disinfectants used have been found to be effective for surface disinfection by the Association for Applied Hygiene (VAH), 2020 edition and are listed accordingly.



3 Results

After exposure to disinfectant, the surfaces of the test specimens were checked for blistering, peeling and cracking, as well as optical changes such as colour and gloss, according to the following standards:

- Blistering: DIN EN ISO 4628-2: 2004-01
- Peeling off: DIN EN ISO 4628-5: 2004-01
- Cracking: DIN EN ISO 4628-4: 2004-01
- Colour: DIN EN ISO 4628-1: 2004-01
- Gloss: DIN EN ISO 4628-1: 2004-01

Tab. 1. Results

Disinfectant	Test standards	Parameter	Results
Schülke perform	ISO 4628-2	Blistering; Degree of bladder:	0(S2) ^a
	ISO 4628-5	Peeling; Degree of exfoliation:	0(S2) ^b
	ISO 4628-4	Cracking; Degree of crack:	0(S2) ^c
	ISO 4628-1	Colour:	0(S2) ^d
	ISO 4628-1	Gloss:	0(S2) ^d
Schülke antisept AF (N)	ISO 4628-2	Blistering; Degree of bladder:	0(S2) ^a
	ISO 4628-5	Peeling; Degree of exfoliation:	0(S2) ^b
	ISO 4628-4	Cracking; Degree of crack:	0(S2) ^c
	ISO 4628-1	Colour:	0(S2) ^d
	ISO 4628-1	Gloss:	0(S2) ^d
Incidin Liquid	ISO 4628-2	Blistering; Degree of bladder:	0(S2) ^a
	ISO 4628-5	Peeling; Degree of exfoliation:	0(S2) ^b
	ISO 4628-4	Cracking; Degree of crack:	0(S2) ^c
	ISO 4628-1	Colour:	0(S2) ^d
	ISO 4628-1	Gloss:	0(S2) ^d
Incidin Rapid	ISO 4628-2	Blistering; Degree of bladder:	0(S2) ^a
	ISO 4628-5	Peeling; Degree of exfoliation:	0(S2) ^b
	ISO 4628-4	Cracking; Degree of crack:	0(S2) ^c
	ISO 4628-1	Colour:	0(S2) ^d
	ISO 4628-1	Gloss:	0(S2) ^d

^a Bubble amount (bubble size) = none, this means no visible damage to the normal eye (vision corrected to normal sight)

^b Percentage of the area from which the coating has peeled off in % (size of the area from which the coating has peeled off. Peeling off not visible to the normal eye (vision corrected for normal sight)

^c number of cracks (crack width) = none, this means no visible cracks to the normal eye (vision corrected to normal sight)

^d amount of damage (size of damage) = none, this means no visible damage to the naked eye (vision corrected to normal sight)



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blank value



Schülke perform

Photo 1: Appearance of the test specimen after 10 loads with a 2% Schülke perform solution compared to the unstressed test specimen (blank value)

blank value



Schülke antifect AF (N)

Photo 2: Appearance of the test specimen after 10 loads with a 2% Schülke antifect AF (N)-solution compared to the unstressed test specimen (blank value)

blank value



Incidin Liquid

Photo 3: Appearance of the test specimen after 10 loads with a 100% Incidin Liquid -solution compared to the unstressed test specimen (blank value)



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blank value



Incidin Rapid

Photo 4: Appearance of the test specimen after 10 loads with a 1% Incidin Rapid -solution compared to the unstressed test specimen (blank value)

4 Evaluation

As part of the test carried out, no visual changes with the disinfectants used were found.