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Test report

project: **P 14382-1**

order: Test of the slip/skid resistance on
Silikal® kitchen system
based on Australian Standard „AS 4586-2013”

sample description: see overview 1

order date: 2024-07-08

Sample receipt date: 2024-10-09

test period: October 2024

This test report comprises: 5 pages

Flörsheim, 2024-12-02



i. V. Dipl.-Ing. (FH) N. Machill
head of unit



i. A. P. Stein
person in charge

The test results exclusively refer to the tested materials. The publication of the test report in extracts and references to tests for advertising purposes require our written agreement in each single case.

^{a)} Information of the client. ^{k)} modification

Director: Prof. Dr. Roland Hüttel, Wulf Jannsen, Dr. Gero Schönwaßer
Local district court: Hamburg, HRB 130568, St.Nr.: 46/736/03268



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^{a)} Information of the client. ^{k)} modification

1 SUBJECT

Silikal GmbH, Mainhausen, commissioned Kiwa GmbH Polymer Institut to test the coating system

Silikal® kitchen system

based on the following materials

Silikal® RU 380
Silikal® RU 321 pigmented
Silikal® R 61, Silikal® Filler „dust free“
Silikal® R 71

tests of the slip/skid resistance, based on Australian Standard „AS 4586-2013“.

2 RECEIPT OF SAMPLES

The samples listed in the following table were delivered by freight carrier to Kiwa GmbH Polymer Institut.

Table 1: Incoming samples/substances ^{a)}

Material*	Component	Batch	Amount [kg]
Silikal® RU 380	A	350404	5
Silikal® RU 321 pigmented	A	350415	5
Silikal® R 61	A	348274	5
Silikal® R 71	A	348545	5
Silikal® Filler SL „dust free“	-	-	~3
Silikal® Filler FM	-	-	~3
Silikal® BPO	B	-	~2

* Material was taken back by the client on the day of the coating.

3 PREPARATION OF THE TEST SPECIMENS

The base bodies were coated under standard conditions T_{NORM} according to DIN EN 23270 by an employee of Silikal GmbH in the premises of Kiwa GmbH.

Mixing ratio, composition and application amount are specified as follows:

Overview 1: Coating of the basic bodies ^{a)}

	Consumption in [g/m ²] - mean values -			
	1	2	3	4
coat/ layer	1.layer	2. layer	3.layer	4. layer
basic bodies	Silikal® RU 380	Silikal® RU 321 pigmented	Silikal® R 61 ¹⁾ + Sprinkling Silikal® Filler FM	Silikal® R 71
fiber cement slabs ¹⁾	about 400	about 1.600	about 5.000 ¹⁾ + in surplus	about 400
coating materials	Roller	Roller	trowel & spiked roller	Roller
waiting time [h]	1	1	1	1

¹⁾ Mixing ratio resin : Silikal® Filler SL „dust free“ = 1:2

Overview 2: Mixing ratio ^{a)}

Materials	Hardener content [%] Silikal® BPO to 23°C
Silikal® RU 380	1.5
Silikal® RU 321pigmented	1.5
Silikal® R 61	3.0
Silikal® R 71	2.0

4 TEST

The test of the slip/skid resistance has been carried out on a fibre cement slab, which has been coated according to chapter 3 of this report. The test specimens used had a dimension of 200 mm x 200 mm. Before testing, the samples were stored at 70°C for 7 days and then conditioned at 23°C for 24 hours.

The slip resistance test was carried out based on the slip resistance measurement of new pedestrian surfaces: AS4586:2013 Annex A on the basis of the following parameters:

Pendulum: Skid-Resistance-Tester according to BS 812
Scaling: C-Scale
Grinding length: 126 mm
Slider: SRT-Slider (Slider 57*)
Test surface: wet
Slider preparation: Grade P400 - wet

*SRV refers to the "AS 4586-2013", whose slider 55 (TRL55) is used with a nominal hardness of 55 +/- 5 IRHD.

On Slider 57 (DIN EN 13036-4 "Road and airfield surface characteristics - Test methods - Part 4: Method for measurement of slip/skid resistance of a surface - The pendulum test": December 2011), a nominal hardness of 59 IRHD was measured and corresponds to the Australian Standard "AS 4586-2013". After consultation with the client, the Slider 57 was used for testing on the **Silikal® kitchen system**.

5 RESULTS

Test area	Location	Condition	Mean BPN last 3 swings
1	loose sample	According to Chapter 4	57
2	loose sample		56
3	loose sample		58
4	loose sample		57
5	loose sample		58
Mean BPN* Slip Resistance Value – SRV*			57
Classification (with slider - hardness of 59 IRHD)			P5

*BPN (pendulum number) is based on at least five different measuring points, from which the slip resistance value (SRV) results on average.

Evaluation of the wet pendulum slips	Wet Pendulum (SRV) Series / Slider 55
P0	-
P1	< 20
P2	20 → 34
P3	35 → 39
P4	40 → 44
P5	> 44



Flörsheim-Wicker, 2024-12-02