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Test report - excerpt

P 8679-3-E

Commission:

Test on the waterproofing kit (LAWRK)

Gomastit Aqua Protect Flex Liquid

according to the guideline

**European technical approval for “liquid applied
roof waterproofing kit” (LARWK) – ETAG 005
category W3, expected working life 25 years**

Customer:

**merz + benteli AG
Freiburgstraße 616
3172 Niederwangen
Switzerland**

Persons in charge:

**J. Magner
Dipl.-Ing. (FH) A. Kruse**

Test period:

January – December 2014

Date of the test report:

2015-01-14

The detailed preparation of the specimens and the performed tests including the results were described in the report P 8679-2.

DESCRIPTION OF THE COMPOSITE SYSTEM

A description of the liquid applied roof waterproofing kit can be seen in the following overview.

overview 1: Composition of the specimens according to manufacturer's data

components of the kit	trade name	description
waterproofing layer	Gomastit Aqua Protect Flex Liquid	1-component self-leveling building seal based on silane modified polymers (SMP)
fleece	CLS 80	polyester fleece with a weight per unit area of 80 g/m ²
waterproofing layer	Gomastit Aqua Protect Flex Liquid	1-component self-leveling building seal based on silane modified polymers (SMP)

The specimens were coated with an average consumption of 4120 g/m². This resulted in a mean layer thickness of 3.0 mm.

TESTS

In the following table the performed tests including requirements and results can be seen.

table 1: performed tests

test	requirement	result
identification of components	values	s. chapter 5.1 (P 8679-2)
water vapour transmission	value	$\mu = 1188$ $s_d = 2.9 \text{ m}$
watertightness	watertight	watertight
resistance to the effect of wind loads	>50 kPa	>50 kPa
resistance to dynamic indentation	watertight	watertight, I ₃
		watertight, I ₃
resistance to static indentation	watertight	watertight, L ₄
		watertight, L ₄
resistance to fatigue movement	watertight, max. 75mm detachment. max. 50mm on one site	watertight, no detachment

test		requirement	result
resistance to low temperatures		watertight	watertight, I ₃
resistance to high temperatures		watertight	watertight, L ₄
resistance to heat ageing	dynamic indentation at TL	watertight	watertight, I ₃
	tensile properties (23 °C)	comparison to not aged samples	maximum tensile force: 64.9 N elongation at break: 31.2 %
	resistance to fatigue movement 50 cycles at -10°C	watertight, max. 75mm detachment. max. 50mm on one site	watertight, no detachment
resistance to UV - ageing	dynamic indentation at -10°C	watertight	watertight, I ₃
	tensile properties (23 °C)	comparison to not aged samples	maximum tensile force: 95.0 N elongation at break: 34.6 %
resistance to water ageing:	resistance to the effect of wind loads	>50 kPa	818 kPa
	static indentation at TH	watertight	watertight, L ₄
minimal application temperature	dynamic indentation (23 °C)	watertight	watertight, I ₃
	tensile properties (23 °C)	comparison to not aged samples	maximum tensile force: 64.0 N elongation at break: 57.8 %
maximal application temperature	dynamic indentation (23 °C)	watertight	watertight, I ₃
	tensile properties (23 °C)	comparison to not aged samples	maximum tensile force: 78.2 N elongation at break: 36.2 %
layer thickness		value	3.0 mm
tensile properties (23 °C)		comparison to aged samples	maximum tensile force: 82.4 N elongation at break: 33.6 %

SUMMARY

On behalf of merz + benteli AG, Niederwangen/Schweiz, Polymer Institut executed tests on the waterproofing system

Gomastit Aqua Protect Flex Liquid

according to

ETAG Nr. 005
Version march 2000
Guideline for the European technical approval
for
liquid applied roof waterproofing kit

The ETAG Nr. 005 guideline requires the proof of performance characteristics as a guide for the assessment of usefulness of the „liquid applied roof waterproofing kit“(LARWK).

Classification for use

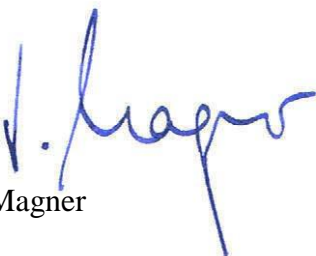
The tested LARWK based on the substances stated above can be classified according to the present test results into the following categories:

useful life:	category W3, expected working life 25 years
climate zones:	category S, severe climate category TL3, severe low temperature category TH3, moderate high temperature
roof slope:	category S 2, 5 % - 10 %
user load:	category P3, normal


Flörsheim-Wicker, 2015-01-14

Head of the institute

J. Magner



Person in charge


Dipl.-Ing. (FH) A. Kruse