

Test Report

Report No.: 2101281/ 14482 / 1H

Date: 2021-06-09

Client: APS Prosch GmbH
Kiebitzhörn 36
22885 Barsbüttel

Subject: Test plates made out of EPDM LOPI50

Task: Test according to EN 16421:2015 method 2
"Influence of materials on water for human consumption —
Enhancement of microbial growth (EMG)"

Order: 2021-02-19

Date of sampling: —

Location of sampling: No samples taken by OFI staff
Samples provided by the client

Receipt of samples: 2021-02-11



Nicht akkreditierte Verfahren sind als solche gekennzeichnet.
Non-accredited procedures applied have been named as such.

1 SCOPE OF WORK

As ordered, the received samples – with consideration of existing test a/o inspection results from accredited laboratories – were tested for fulfilment of the requirements given by the EN16421:2015.

2 SCOPE OF APPLICATION

The results given in this Test Report have been obtained under the specific conditions of the individual tests. As a rule they are not the only criteria for assessing the product in question and its suitability for a specific purpose of application.

3 TESTS

Testing took place from 2021-02-24 to 2021-05-18.

The formulation of the material was disclosed at 2020-06-09.

The tests were carried out in the individual technical departments within the scope of competence of the authorized signatories according to the OFI QM manual.

The specified test conditions, the used methods and the used devices are given in the following tables.

Submitted external test / inspection results:

- None

Table 1: Test conditions

Test periode	Tested surface	Flow rate	Exposure periode	Test water
1-month sample	2 x 800 cm ²	20 ± 2 L/h	3 x 28 days	De-chlorinated tap water
2-month sample			56 days	
3-month sample			84 days	
Positive control	1 x 800 cm ²		3 x 28 days	
Negative control			3 x 28 days	

The slime was removed from sample surface and transferred to a measuring tube with 0,01 mL graduation. After centrifugation for 10 min at 3000 g the volume of the slime was determined with scaled glass vials via the scaling of the measuring tube.

4 RESULTS

All results are shown in Table 2.

Table 2: Results in mL surface growth per 800 cm² surface of **LOPI50**

Duration	1 month sample [mL/800cm ²]			2 month sample [mL/800cm ²]	3 month sample [mL/800cm ²]
	4 weeks	8 weeks	12 weeks	8 weeks	12 weeks
1. Determination	0,40	0,02	0,01	0,06	0,06
2. Determination	0,39	0,03	0,04	0,04	0,02
Mean	0,40	0,03	0,03	0,05	0,04
Negative control	< 0,01	< 0,01	< 0,01	< 0,01	< 0,01
Positive control	2,8	2,5	2,3	2,9	2,3

5 SUPPLEMENTARY STATEMENT ON THE TEST RESULTS

Based on these test results and considering chapter 5.6 of the guideline for hygienic assessment of elastomers in contact with drinking water (Issued 2015-02-15), the material:

“LOPI50”

is suitable for use as a large-area seal for direct contact with drinking water with respect to microbial growth— on condition of professional processing with respect to its application.

The Guideline for hygienic assessment of elastomers in contact with drinking water (Issued 2015-02-15) states that the test according to EN16421 shall be repeated once every five years. Therefore, a new type test for the test plates made out of “LOPI50” should be done before 2026-05-20.



This Test Report No. **2101281/ 14482 / 1H** comprises
6 sheets with 2 table(s), 0 figure(s) and 0 appendix(es).

Any test results relate only to the samples tested. Test Reports may be made available to third parties, either free of charge or against payment, if the full wording of the Test Report is given and if OFI is expressly named as the author. All tests applied are subject to a quality assurance program according to EN ISO/IEC 17025:2017.

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