



OFI Technologie & Innovation GmbH
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Test Report No. 1702107 / 2181 / 1He

Vienna, 2017-10-18
Sign: Wirrer – Ext. 930

Client: Willbrandt KG
Reinhold-Schleese Straße 22
DE – 30179 Hannover

Test item: test plates

Material: AQUALIT® blue

Producer: TOVO GOMMA S.p.A, IT – 25081 Bedizzole

Order: 2017-05-18 by Mr. Struve

Date of sampling: no samples were taken by OFI employees, samples were sent by client

Receipt of samples: 2017-06-16

Type of Test:: Test according to DVGW sheet W 270
("Microbial enhancement on materials to come into contact with drinking water - Testing and assessment" Issue 2007)

Test period: 2017-07-17 to 2017-10-9

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 DVGW sheet W 270.

Submitted external test / inspection results:

➤ No external reports submitted

Performed tests:

In the individual technical departments within the scope of competence of the authorised signatories according to the OFI QM manual the tests for the **DVGW sheet W 270** were carried out. The specified test conditions, the used methods and the used devices are given in the following tables.

The slime was removed from their 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.



Table 1: test specifics

Test period	Tested surface	Exposure period	Flow rate test water	Test water
1 month samples	2 x 800 cm ²	3 x 28 days	20 ± 2 L/h	De-chlorinated tapwater
2 month samples	2 x 800 cm ²	56 days	20 ± 2 L/h	De-chlorinated tapwater
3 month samples	2 x 800 cm ²	84 days	20 ± 2 L/h	De-chlorinated tapwater

Results of all tests in table form (table 2):

Duration	Start of exposition	After 4 weeks		After 8 weeks		After 12 weeks	
		1-month samples	0,04	0,06	0,01	0,01	0,02
mean	2017-07-17	0,05		0,01		0,02	
positive control		4,8		2,1		3,5	
negative control		< 0,01		< 0,01		< 0,01	
2-month samples		-----	0,03	0,01	-----		
mean			0,02				
positive control			2,1				
negative control		-----	< 0,01		-----		
3-month samples		-----	-----		0,04	0,04	
mean					0,04		
positive control					3,5		
negative control		-----	-----		< 0,01		

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.

<p>This Test Report consists of 2 pages 2 tables and 0 appendices.</p>  <p>Non-accredited procedures applied have been named as such.</p>  <p>1702107_2181_1He W270 Pb</p>	<p>Testing engineer:</p> <p><i>Andrea Rubinig</i> 19.10.2017 Andrea Rubinig (Material in contact with drinking water)</p>
	<p>Director in charge:</p> <p><i>Christoph Wirrer</i> 19.10.2017 Christoph Wirrer, BSc. (Material in contact with drinking water)</p>

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 programme according to EN ISO/IEC 17025:2005.

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