

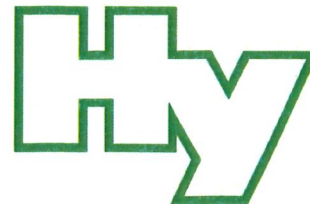


Hygiene-Institut des Ruhrgebiets

Institut für Umwelthygiene und Toxikologie

Director: Dr. Thomas-Benjamin Seiler

Legal Entity: Verein zur Bekämpfung der Volkskrankheiten im Ruhrkohlengebiet e.V.



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Gelsenkirchen, 12.05.2022

TEST REPORT according to the requirements of DIN EN 12873-1:2014-09 and DIN EN 1420:2016-05

Order of: 20-December-2021

Field of application: containers and tanks (P1) in drinking water installations, including repair systems cold water and warm water (23 °C and 60 °C)

Product: „program for reservoirs type AQF 570 until 1000; RD/AQF 1050 until 2000; Trio/TrioSafe 750 until 1500 and PE storage tanks 750 until 4000”, uncoloured natural

Test Specimen: container segments of program for reservoirs made of Lupolen HD-PE 4261 AG UV, uncoloured natural, dimensions: 200 x 200 mm, 200 x 80 mm, 200 x 60 mm, 100 x 100 mm and 150 x 150 mm (manufacturer's information)

Production Place: DEHOUST GmbH, Gutenbergstraße 5 – 7, 69181 Leimen

Date of receipt: 16-December-2021

Sampler: transmitted by mail

Start of migration test: 25-January-2022

End of test: 23-February-2022

The Director of the Hygiene-Institute
on behalf of

Dr. rer. nat. Nicole Krüger
Head of the Dept. for water
hygienic material testing

This test report consists of 3 pages.

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Test results cold water (23 °C)

Product: „program for reservoirs type AQF 570 until 1000; RD/AQF 1050 until 2000; Trio/TrioSafe 750 until 1500 and PE storage tanks 750 until 4000“, uncoloured natural

Specimen: container segments of program for reservoirs made of Lupolen HD-PE 4261 AG UV, uncoloured natural, dimensions: 200 x 200 mm, 200 x 80 mm, 200 x 60 mm, 100 x 100 mm and 150 x 150 mm (manufacturer's information)

Formulation: submitted and checked (no. 11816)

Conversion factor: 4 (Containers and tanks in drinking water installations, including repair systems)

S/V-ratio migration test according to DIN EN 12873-1:2014-09: 16.80 dm² / 3.40 dm³ \pm 4.94 dm⁻¹

S/V-ratio odour/flavour test according to DIN EN 1420:2016-05: 8.40 dm² / 3.40 dm³ \pm 2.47 dm⁻¹

Parameter	Method	Test cycle / Result			Requirements according to KTW-BWGL ¹⁾
		1 4 th day	2 7 th day	3 10 th day	
Colour [mg/l Pt] / (pH value)	DIN EN ISO 7887:2012-04 method C	< 2 / (6.1)	< 2 / (5.7)	< 2 / (5.8)	≤ 10 mg/l Pt
Turbidity [FNU]	DIN EN ISO 7027:2016-11	< 0.1	< 0.1	< 0.1	≤ 0.5 FNU
Tendency to foam formation	HY-14.5, 2008-11	none	none	none	n.s.e.
Threshold odour number (23 °C)	DIN EN 1622:2006-10	1	1	1	≤ 2
Total organic carbon (TOC) C _{tap} mg/l	DIN EN 1484:2019-04	< 0.02	< 0.02	< 0.02	≤ 0.5
Formulation specific parameters with restrictions		Four formulation specific parameters with restrictions were analysed within the test water fractions. The Guidance levels are passed. ²⁾			Guidance Level passed

The test water fractions for the analysis of odour, turbidity, colour and foam formation were prepared according to DIN EN 1420:2016-05.

The test water fractions for the analysis of TOC, additional parameters and formulation specific parameters were prepared according to DIN EN 12873-1:2014-09 or DIN EN 12873-2:2005-04.

¹⁾ KTW-BWGL, status 2021-03

²⁾ results are partially not accredited

Test results warm water (60 °C)

Product: „program for reservoirs type AQF 570 until 1000; RD/AQF 1050 until 2000; Trio/TrioSafe 750 until 1500 and PE storage tanks 750 until 4000”, uncoloured natural

Specimen: container segments of program for reservoirs made of Lupolen HD-PE 4261 AG UV, uncoloured natural, dimensions: 200 x 200 mm, 200 x 80 mm, 200 x 60 mm, 100 x 100 mm and 150 x 150 mm (manufacturer's information)

Formulation: submitted and checked (no. 11816)

Conversion factor: 4 (Containers and tanks in drinking water installations, including repair systems)

S/V-ratio migration test according to DIN EN 12873-1:2014-09: $10.44 \text{ dm}^2 / 2.09 \text{ dm}^3 \triangleq 5.00 \text{ dm}^{-1}$

S/V-ratio odour/flavour test according to DIN EN 1420:2016-05: $2.20 \text{ dm}^2 / 0.88 \text{ dm}^3 \triangleq 2.50 \text{ dm}^{-1}$

Parameter	Method	Test cycle / Result				Requirements according to KTW-BWGL ¹⁾
		1 2 nd day	2 3 rd day	3 4 th day	7 10 th day	
Colour [mg/l Pt] / (pH value)	DIN EN ISO 7887:2012-04 method C	< 2 / (7.6)	< 2 / (5.6)	< 2 / (7.2)	< 2 / (7.0)	≤ 10 mg/l Pt
Turbidity [FNU]	DIN EN ISO 7027:2016-11	< 0.1	< 0.1	< 0.1	< 0.1	≤ 0.5 FNU
Tendency to foam formation	HY-14.5, 2008-11	none	none	none	none	n.s.e.
Threshold odour number (23 °C)	DIN EN 1622:2006-10	1	1	1	1	≤ 4
Total organic carbon (TOC) C _{tap} mg/l	DIN EN 1484:2019-04	< 0.06	< 0.06	< 0.06	< 0.06	≤ 0.5
Formulation specific parameters with restrictions		Four formulation specific parameters with restrictions were analysed within the test water fractions. The Guidance levels are passed. ²⁾				Guidance Level passed

The test water fractions for the analysis of odour, turbidity, colour and foam formation were prepared according to DIN EN 1420:2016-05.

The test water fractions for the analysis of TOC, additional parameters and formulation specific parameters were prepared according to DIN EN 12873-1:2014-09 or DIN EN 12873-2:2005-04.

¹⁾ KTW-BWGL, status 2021-03

²⁾ results are partially not accredited