

**LVHT**

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Test Report

in accordance with the Recommendation of the BGA (Federal Health Office) for Plastic Materials for Use in Baths and Swimming Facilities (German Abbreviation: KSW)

for

**RENOLIT IBÉRICA, S.A.
Ctra. Del Montnegre, s/n
08470 Sant Celoni / Spain
Job No. KSW 6111 / 08.2009**

Material tested: Alkorplan 2000 (blue)

Date of receipt: April 2009

Size of sample: 200 mm x 200 mm – homogeneous – cut to size

Area of use: Swimming and bathing pool water

Material type: PVC-based (swimming pool sheeting)

Type of test: Migration behaviour of material exposed to chlorine

Assessment of results:

For the entire duration of the tests (nine days), the results obtained with the material tested were below the statutory limits (organic C, chlorine consumption) or recommended values (additional material properties: chloramines, trihalomethanes, oxidation capacity). With respect to its hygiene and technical properties, the material tested must therefore be assessed as suitable for use in swimming and bathing pools (< 2 mg/l free Cl₂, 40 ± 1.0 °C).



Geschäftsführer: Dipl.-Ing Bernd Wiesend · Amtsgericht Essen · HRB Nr.: 9817 · USt.-Id Nr.: DE 1 19 67 02 11
Akkreditiert bei der Staatlichen Akkreditierungsstelle Hannover (AKS Hannover) Nr.: AKS-P-20706-EU

Mitglied in: Deutsche Gesellschaft für das Badewesen e.V. · DIN-Kommission 19643 · DVGW · European Waterpark Association · VDI-Kommission 2089
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of our test certificate of 25 August 2009 (Alkorplan 2000 - blue)
RENOLIT IBÈRICA, S.A.
Ctra. Del Montnegre, s/n, 08470 Sant Celoni / Spain

Test conditions: for swimming and bathing water use

Migration test: yes

Chlorine consumption test: yes

Temperature (C°): 40 ± 1.0

Initial Cl₂ concentration (mg/l): 2.0 ± 0.1

Pre-treatment: exposure to chlorine-free water from the central drinking water system for 72 hours

Contact time: 9 days for one test

Parameter	Test water			Change compared with water at start of test
	Days 1-3	Days 4-6	Days 7-9	after day 9
Colour	colourless	colourless	colourless	none
Turbidity	none	none	none	none
Odour	none	none	none	none
Foaming tendency	none	none	none	none
	Material surface values relevant to KSW M = mg/m ² x day			Maximum limit M = mg/m ² x day
Org. C	7.47	6.15	5.03	≤10
Chlorine consumption (free chlorine)	4.05	3.31	2.95	≤ 8
	Additional material values M = mg/m ² x day			Recommended limit M = mg/m ² x day
Chloramines	<0.01	< 0.01	< 0.1	≤ 2
THM concentration	< 1	< 1	<1	≤ 15
Oxidation capacity	1.08	0.95	0.81	≤14

THM = trihalomethanes (calculated as trichloromethane)

L. V. H. T. GmbH

(Dr. D. Pacik)

45307 Essen, 26 August 2009 / lo