

מבצע ג'א זאב זכור אקדמיה זכור



Test report no.: 93895/10

Client: Haogenplast Ltd. Plastic Industries
42880 Kibbutz Haogen
ISRAEL

Order: Abrasion tests on swimming pool membranes according to ISO
5470-1 : 1999

Letter of: 2010-10-20 **Ref.:** Nira Nahar

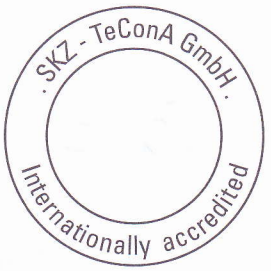
Sample received: 2010-10-22 **Sample taken:** -

Test period: 2010-11-05 till 2010-11-10

This test report comprises 3 pages.

Würzburg, 2010-11-11
De/mo

i. V. 
Dr. Anton Zahn



i. A. 
Dipl.-Ing. Udo Dengel

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SKZform 1020 - 01.09

1 Order

The company Haogenplast Ltd. Plastic Industries, 42880 Kibbutz Haogen, ISRAEL, ordered the SKZ - TeConA GmbH on 2010-10-20 to carry out abrasion tests on swimming pool membranes according to ISO 5470-1 : 1999.

2 Test material

On 2010-10-22 SKZ – TeConA GmbH received the following samples for testing:

- approx. 0,3 m x 1,5 m of a blue swimming pool membrane, labelling “Code no. Unicolor, Product: Swimming pool 15 UL, Serial no: 37.2817, Color 8044”
- approx. 0,3 m x 1,5 m of a printed swimming pool membrane with a blue tile motive, labelling “Code no. Printed, Product: Swimming pool 15 L, Serial no: 37.6002”

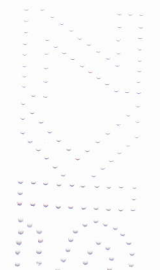
According to the customer the swimming pool membranes are made from plasticized Polyvinylchloride (PVC-P).

SKZ – TeConA GmbH had no influence on the selection of the test material.

3 Execution of test

Usually we carry out tests according to standards for which we have an accreditation. The list of all standards for which we are accredited is shown on the homepage at www.skz.de.

If not otherwise mentioned, the tests were carried out in standard atmosphere 23/50 according to EN ISO 291 : 2008-05, class 1 after a minimum of 96 hours storage in this climate.



3.1 Abrasion test

The abrasion test was carried out according to ISO 5470-1 : 1999 "Rubber- or plastics-coated fabrics – Determination of abrasion resistance – Part 1: Taber abrader".

The following test parameters have been submitted:

Testing machine:	Taber Abrader
Abrasion wheel:	CS 17
Refacing disc:	S-11
Number of specimens:	6
Number of cycles:	100
Rotation speed:	60 min ⁻¹
Suction nozzle diameter:	(8 ± 0,5) mm
Distance suction nozzle to sample:	(1,5 ± 0,5) mm
Vacuum:	2,5 kPa
Rotation speed:	60 min ⁻¹
Load:	5 N

4 Test results

The test results are summarised in table 1.

Table 1: Test results

Property	Test method/Test terms	Unit	Test result	
			15 UL Serial no: 37.2817	15 L Serial no: 37.6002
Rate of mass loss	ISO 5470-1 : 1999	mg/100 cycles	mean value: 0.0010 (individual values: 0.0007; 0.0003; 0.0014; 0.0021; 0.0006; 0.0008)	mean value: 0.0019 (individual values: 0.0031; 0.0034; 0.0009; 0.0016; 0.0008; 0.0015)