

Assessment Report

- Translation -

Document No.: (5241/978/14b) – Pan of 03/11/2014

Client: Bekina Compounds NV
Berchemstraat 124
B 9690 KLUISBERGEN

Order date: 01/07/2014

Subject: Reaction of the "BeSealed Bentobar Quellband SW"
swelling tape when stored in 1-percent / 4-percent saline
water

Test material received: 26/06/2014

Sampling: Made by the client

Assessment period: July until October 2014

This Assessment Report consists of 2 pages and 1 annex.



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1 Background

Bekina Compounds NV commissioned the Braunschweig Civil Engineering Materials Testing Institute (MPA) to test the swelling behaviour of the "BeSealed Bentobar Quellband SW" swelling tape for joints when stored in 1-percent / 4-percent saline water.

The "BeSealed Bentobar Quellband SW" swelling tape for joints is a sodium bentonite with butyl rubber material dyed red. It has the dimensions 25 mm x 20 mm (width x height).

2 Test results

Three samples each of the joint swelling tape (approx. 100 mm) long were stored for 48 hours in a 1-percent / 4-percent brine solution until a change in weight of $\Delta m_{48} \leq 2\%$ was observed. After that, the samples were dried for 48 hours in a standard 23/50-2 climate, until again a change in weight of $\Delta m_{48} \leq 2\%$ was observed. This cycle was repeated two times.

Table 1 below shows the mean values of the test results. The changes in weight are shown as a function of time in the graph in annex 1.

Table 1: Swelling behaviour when stored in saline water

Test liquid	Change in weight in % after			
	1st storage in saline water	1st drying phase	2nd storage in saline water	2nd drying phase
1-percent saline water	283	0.9	248	15.8
4-percent saline water	180	7.7	174	9.5

3 Assessment

In view of the reaction that the sample showed when stored in the brine solutions it can be safely assumed that construction joints sealed with the "BeSealed Bentobar Quellband SW" swelling tape meet the basic conditions for water tightness when exposed to 1-percent to 4-percent saline water.

This document is the translated version of Assessment Report No. 5241/978/14b – Pan dated 03/11/2014. The legally binding text is the aforementioned German Assessment Report.

i.A.



Dr.-Ing. K. Herrmann
Head of Department



i.A.



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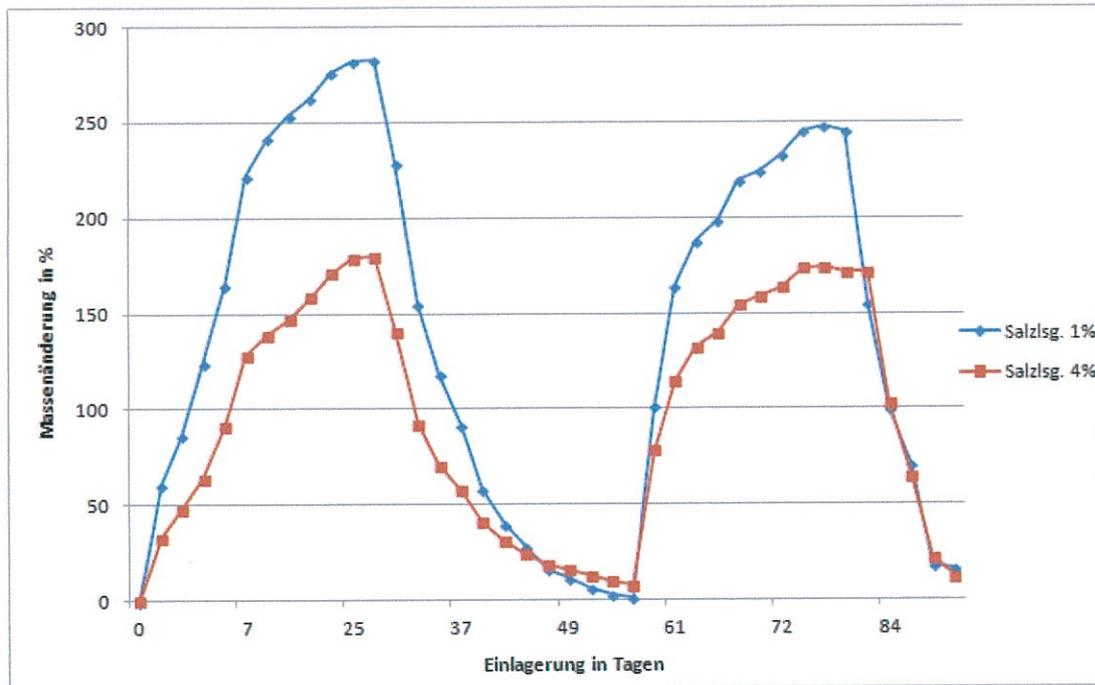


Fig. A1: Change in weight of the swelling tape when stored in 1-percent / 4-percent brine solution