

## Allgemeines bauaufsichtliches Prüfzeugnis

Für den

**Gegenstand:** Kunststoff-Dachdichtungsbahn „Sure-Weld GS“

wird hiermit ein allgemeines bauaufsichtliches Prüfzeugnis erteilt.

**Antragsteller:** Carlisle SynTec  
Brusselsesteenweg 623  
1731 Zellik-Asse  
Belgium

**Ausstellungsdatum:** 05. Januar 1998

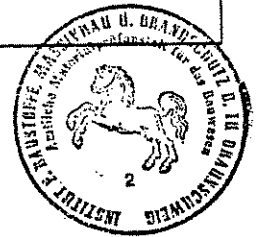
**Geltungsdauer bis:** 04. Januar 2003

**Prüfzeugnis Nummer:** P-6323/4826

Dieses allgemeine bauaufsichtliche Prüfzeugnis umfaßt 7 Blatt und 9 Anlagen.



Prüfung/Prüfbedingungen n. DIN 16 726 Abschnitt	Eigenschaften	Anforderungen	Prüfergebnisse
5.14 DIN 53 361	Verhalten beim Falzen in der Kälte bei -20°C  längs quer	keine Risse keine Risse	keine Risse keine Risse
Ergänzungsprüfung	Verhalten beim Falzen in der Kälte bei -30°C  längs quer	- -	keine Risse keine Risse
5.15 DIN 53 122 T1 Trocknbereichsverfahren 23-85/0	Wasserdampf-Diffusionswiderstandszahl $\mu$  Wasserdampf-Diffusionsstromdichte  Wasserdampf-diffusionsäquivalente Luftschichtdicke	- - -	$\mu = 103150 [-]$  WDD = 0,31 g/m <sup>2</sup> d  $S_e = 131 \text{ m}$
5.16 DIN 4062	Wurzelfestigkeit	wurzelfest	wurzelfest



# Prüfbericht

Nr. 6323/4826-He/Lau  
(12.12.1997)

1. Ausfertigung

**Antragsteller:** Carlisle SynTec  
Brusselsesteenweg 623  
1731 Zellik-Asse  
Belgium

**Antrag vom:** 08.05.1996

**Zeichen:** -

**Eingang:** 08.05.1996

**Inhalt des Antrages:**

Prüfungen an einer Dachdichtungsbahn mit der Produktbezeichnung

„Sure-Weld GS“

**Eingang des Versuchsmaterials:** 05.06.1996

**Probenahme:** durch Antragsteller

**Kennzeichnung:** siehe Abschnitt 1

Der Prüfbericht umfaßt 5 Blatt und 27 Anlagen.

Veröffentlichungen von Prüfberichten, auch auszugsweise, und Hinweise auf Prüfungen zu Werbezwecken bedürfen in jedem Einzelfalle der schriftlichen Einwilligung der Prüfanstalt. Die einzelnen Blätter dieses Prüfberichtes sind mit dem Dienstsiegel versehen.



Prüfung/Prüf- bedingungen n. DIN 16 726  Abschnitt	Eigenschaft	Prüfergebnis
<p style="text-align: center;"><b>5.16</b> DIN 4062</p> <p>Probekörperanzahl: 3 Probekörper: <sup>1)</sup> Prüfdauer: 07.06 - 05.08.1996</p>	<p><b>Wurzelfestigkeit</b></p>	<p>Gemäß den Anforderungen nach DIN 4062 sind die T-Nahtproben der Dachdichtungsbahn wurzelfest</p>

<sup>1)</sup> Die Prüfung der Wurzelfestigkeit erfolgte an Proben mit einem Durchmesser von 175 mm, die aus der Mitte von jeweils 400 x 400 mm<sup>2</sup> großen Bahnenstücken mit Fügenähten die ein „T“ (T-Stoß) bilden entnommen wurden



**DIN 16726 5.16: Impermeability to roots**

**Impermeability to roots shall be determined on a sheet with a T-Butt joint according to DIN 4062, September 1978 edition, paragraphs 4.7 and 5.7.**

**Gemäß den Anforderungen nach DIN 4062 sind die T-Nahtproben der Dachdichtungsbahn wurzelfest.**

**Loosely translated:**

**Gemäß; the requirements according to the test method DIN 4062 for the sheet seam (T-joint) is root impermeable.**

If WVT is less than  $0.5 \text{ g}/(\text{m}^2 \cdot \text{d})$ , the test may be carried out in accordance with DIN 53122 Part 2.

#### 5.16 Impermeability to roots

Impermeability to roots shall be determined on a sheet with a I-butt joint according to DIN 4062, September 1978 edition, paragraphs 4.7 and 5.7.

#### 5.17 Behaviour after weathering in apparatus

For weathering, samples (sheet sections) shall be used the number and dimensions of which are appropriate for the subsequent tests provided for in the corresponding materials standards and the dimensions of the sample-holders in the weathering apparatus. If the sheets have plies or are reinforced, the cut edges of the samples shall be sealed prior to weathering.

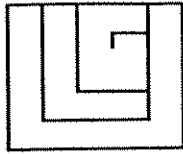
Weathering shall be carried out in accordance with DIN 53387, Cycle B (wetting period 3 minutes, drying period 17 minutes) with an irradiation of  $1100 \text{ MJ}/\text{m}^2$  in the case of waterproofing sheets and  $4500 \text{ MJ}/\text{m}^2$  in the case of roofing sheets. Test pieces for the tests to be carried out in accordance with the relevant materials standards shall be taken from the weathered samples after a further 7 days' storage in standard atmosphere DIN 50014 23/50-2. A comparison shall be made of the values obtained for weathered test pieces and test pieces as delivered in accordance with 5.6.

#### 5.18 Behaviour after storage in aqueous solutions

For storage in aqueous solutions, samples (sheet sections) shall be used the number and dimensions of which are appropriate for the tests provided for in the relevant materials standards. In the case of sheets with a ply of reinforcement, the cut edges of the samples shall be sealed before storage. The samples shall be stored for 28 days at  $(23 \pm 2)^\circ\text{C}$  as specified in the materials standard in one of the test liquids according to Table 2.

Joe  
UK

G.C. LIEGE a.s.b.l.



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Number of pages : 3  
Number of plates : -

Liège, le 16 novembre 1992

REPORT OF  
THE TEST

5/CHA

Nr 52.526/1

Ordered by : CARLISLE SYNTHETIC SYSTEMS BNL S.A.  
Rue du Patinage, 30 1190 BRUXELLES

For : Idem

Letter of advice : Ref. TE-193 of 07/04/92 of M. VERTOCKT

Nature of material : CARLISLE non reinforced EPDM membrane  
CARLISLE reinforced EPDM membrane

Origin : CARLISLE

Received on : 14/04/92

Test requested : Resistance to roots

Responsible Engineer : J. WIERTZ - L. COURARD  
Responsible technician : F. LIBIOLLE  
Professor : J.M. RIGO - R. DEGEIMBRE

Responsible of laboratory

The Professor - Director  
of the laboratory

When the materials have not been sampled by us, the laboratory will not carry any liability as far as their origin is concerned. It only guarantees the accuracy of the results of the tests it has carried out. Reproduction, even partial, of this report must be agreed upon by the Laboratories.

The laboratory received samples of CARLISLE membrane referred :

Sample nr 1 : Carlisle non reinforced EPDM membrane  
Sample nr 2 : Carlisle reinforced EPDM membrane

### TEST

Resistance to roots

### DESCRIPTION AND RESULTS OF THE TEST

The test is realized according to the standard DIN 4062.

#### A. OPERATING CONDITIONS

Three pots are filled with burial soil to the half-height. In each pot a sample having a diameter corresponding to the one of the pot is disposed.  
The joint between the sample border and the pot is realized by means of a silicone resin.

The samples are recovered with about 90 cm soil.  
The seeds of "lupinus albus" are then regularly shared on the soil recovered with 10 cm soil. Because the test is realized during winter season, the pots are placed in a hot-house and are submitted to an additional lighting.  
The soil over an under the sample is regularly humidified.

#### B. CONCLUSIONS

After 8 weeks, the pots are emptied and the underface of the samples is observed. At the same time, the vitality of the seeds is verified. It is the reason why a pot, prepared in the same conditions but with a sample of bitumen 85/40 of 20 mm thick, is used.

#### C. RESULTS

The tests have been realized on :

- reference sample (2 cm bitumen)
- nr 1 : CARLISLE non reinforced EPDM membrane
- nr 2 : CARLISLE reinforced EPDM membrane

Photos nr 1, 2, 3 and 4

These photos show the results obtained for reference tests with a bitumen sample of 2 cm thick and confirm the vitality of the seeds because the roots went through the sample.

Photo nr 1 and 2

The soil is filled out and the lupin roots are hanging up to the bitumen sample.

Photo nr 3 and 4

The over and under surfaces of the bitumen sample are shown. The roots went through the sample.

Photos nr 5,6,7 and 8

They show the results for samples nr 1 and 2.

Photo nr 5

This photo shows the results for sample nr 1. The roots are absolutely not hanging up to the membrane.

Photo nr 6

We see the under and over surface of the membrane; there is no alteration, or penetration of the roots through the membrane.

Photo nr 7

This photo shows the results for sample nr 2. The roots are absolutely not hanging up to the membrane.

Photo nr 8

We see the under and over surface of the sample. We observe no alteration or penetration of the membrane by the roots.