



Laboratory

**570 Payne Branch Rd.
Blowing Rock, NC 28605
Ben E. Edwards, Ph.D.**

**Phone/FAX 828/265-2530
email: beeiii@boone.net**

September 7, 2009

Attn.: Diane M. Vaessen / dvaessen@rohmmaas.com
Dow Construction Chemicals
727 Norristown Road, P.O. Box 904
Spring House, PA 19477-0904

Here are test report, test data and Invoice for Samples: CS-3800 Cure Membrane and CS-3800 Low VOC Sealer.

Both products performed satisfactorily. I would not consider the difference in retention between the two products to be significant since it is barely beyond the range of variation in each test series.

Feel free to call or email for further information about these tests.

Regards,

Ben E.

Attachments:

Test Report

Test Data

Invoice

BEE LABORATORY

570 Payne Branch Rd.
Blowing Rock, NC 28605
Ben E. Edwards, PhD

Phone/FAX 828/265-2530
email: beei@boone.net

TEST REPORT: ASTM C 156-05 Water Retention by Concrete Curing Materials.

The test is run according to the ASTM method with mortar specimens 150 mm in diameter and 35 mm deep.

Sample Submitted by: Diane M. Vaessen , Dow Construction Chemicals 727 Morristown Rd, Springhouse, PA, 19477-0904

Mfr's. brand designation and batch no.: CS-3800 Cure Membrane

Type & Class of curing material: 1 B Sample Quantity 1 pt

Date Sampled: na Date Received: 9/03/09

Source of Sample: Dow Construction Chemicals

Laboratory sample identification: 809-8 Date tested: 9/03/09

Brand cement used: Saylor's Mortar proportions(W:C:S) 0.4 : 1.0 : 2.5.

Application method: Spray Duration of test: 72 hrs.

Application rate: 200 sq.ft./gal. Weight/gal. 8.44 lbs./gal %Solids: 20

Loss of weight from each specimen: 0.42; 0.37; 0.38 kg/m²

Range of results: <u>0.05</u> Average loss: <u>0.39 kg/m²</u>
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Comments: This material **meets** the water retention requirement of of ASTM C309.



Test reported by: Ben E. Edwards Date: 9/07/09

Sample: **CS-3800CureMembrane** Source: DOW Date 09/03/09

Date Rcd.: 09/03/09

Viscosity _____ Solids: 20 Wt./Gal 8.44 Type and Class: 1 B

Comments:

Mortar Mix=0.4:1.0:2.5 Application Rate: 200 Pan Size: 160mm Cement Source: Saylor's

Surface Area: _____ Factor: 0.06 Amt. to Apply: 4.1

WEIGHT LOSS DATA

Spec. 1 = G Spec. 2 = H Spec. 3 = I

S	D	Mix Time:	13:34	15:14	01:40				
a	a	Specimen Initial		Condition	Init. loss	Sealed	Sprayed	Wt. Appld	Cor. Wt.
r	t	G	1329.6	1311.9	17.7	1305.7	1309.8	4.1	1306.5
t	a	H	1304.6	1286.8	17.8	1282.5	1286.6	4.1	1283.3
		I	1325.3	1307.0	18.3	1302.6	1306.7	4.1	1303.4

Start time: 15:30

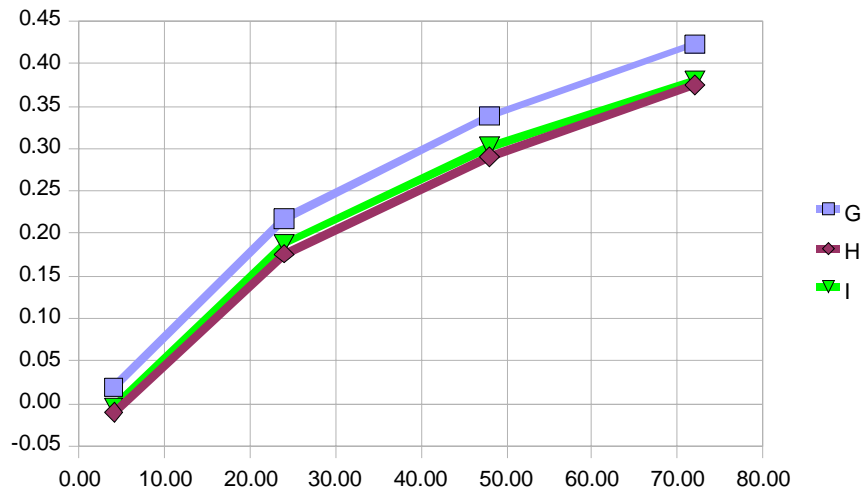
L	D	time	19:30	15:30	15:30	15:30
o	a	G	1306.2	1302.9	1300.9	1299.5
s	t	H	1283.5	1280.4	1278.5	1277.1
s	a	I	1303.5	1300.3	1298.4	1297.1

CALCULATIONS

	t	4	24	48	72
Loss	G	0.3	3.6	5.6	7.0
in	H	-0.2	2.9	4.8	6.2
grams	I	-0.1	3.1	5.0	6.3

	t	4.00	24.00	48.00	72.00
Loss	G	0.02	0.22	0.34	0.42
in	H	-0.01	0.18	0.29	0.37
kg/m ²	I	0.00	0.19	0.30	0.38

Average 0.00 0.19 0.31 0.39



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The test is run according to the ASTM method with mortar specimens 150 mm in diameter and 35 mm deep.

Sample Submitted by: Diane M. Vaessen , Dow Construction Chemicals 727 Morristown Rd, Springhouse, PA, 19477-0904

Mfr's. brand designation and batch no.: CS-3800 Low VOC Sealer.

Type & Class of curing material: 1 B Sample Quantity 1 pt

Date Sampled: na Date Received: 9/03/09

Source of Sample: Dow Construction Chemicals

Laboratory sample identification: 809-9 Date tested: 9/03/09

Brand cement used: Saylor's Mortar proportions(W:C:S) 0.4 : 1.0 : 2.5.

Application method: Spray Duration of test: 72 hrs.

Application rate: 200 sq.ft./gal. Weight/gal. 8.43 lbs./gal %Solids: 20

Loss of weight from each specimen: 0.51; 0.51; 0.46 kg/m²

Range of results: <u>0.05</u> Average loss: <u>0.49 kg/m²</u>
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Comments: This material **meets** the water retention requirement of of ASTM C309.



Test reported by: Ben E. Edwards Date: 9/07/09

Sample: CS-3800 LowVOCSealer DOW Date 09/03/09

Date Rcd.: 09/03/09

Viscosity Solids: 20 Wt./Gal 8.43 Type and Class:

Comments:

Mortar Mix=0.4:1.0:2.5 Application Rate: 200 Pan Size: 160mm Cement Source: Saylor's

Surface Area: Factor: 0.06 Amt. to Apply: 4.0

*** ** WEIGHT LOSS DATA *** **

Spec. 1 = J Spec. 2 = K Spec. 3 = L

S	t	D	Mix Time:	13:57	15:37	01:40			
a	a		Specimen	Initial	Condition	Init. loss	Sealed	Sprayed	Wt. Appld
r	t	J	1317.7	1299.2	18.5	1294.0	1298.0	4.0	1294.8
t	a	K	1323.4	1305.4	18.0	1300.4	1304.4	4.0	1301.2
		L	1306.5	1288.4	18.1	1285.0	1289.1	4.1	1285.8

Start time: 15:50

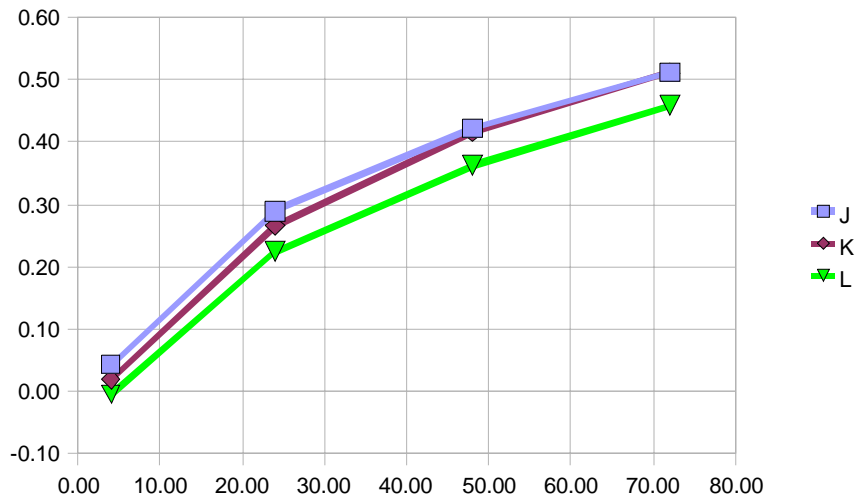
L	D	time	19:50	15:50	15:50	15:50
o	a	J	1294.1	1290.0	1287.8	1286.3
s	t	K	1300.9	1296.8	1294.3	1292.7
s	a	L	1285.9	1282.1	1279.8	1278.2

CALCULATIONS

	t	4	24	48	72
Loss	J	0.7	4.8	7.0	8.5
in	K	0.3	4.4	6.9	8.5
grams	L	-0.1	3.7	6.0	7.6

	t	4.00	24.00	48.00	72.00
Loss	J	0.04	0.29	0.42	0.51
in	K	0.02	0.26	0.42	0.51
kg/m ²	L	0.00	0.22	0.36	0.46

Average 0.02 0.26 0.40 0.49



BEE Laboratory .

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INVOICE #90907

Remit to: BEE Laboratory
570 Payne Branch Rd
Blowing Rock, NC 28605

Your P.O. # verbal

Moisture Retention Testing in Accordance with ASTM C 156

2 samples Concrete Sealer, JW27-052009A thru D

Report Delivered 9/07/09

@\$500 each

Total \$1000

Net Due \$1000

Terms: due 10/05/09