

**Appendix 4 Photos of concrete slabs taken
during resistance to scaling test
(BNQ 2621-905/2012)**

Source #5
Exposure class C-2

Sample : Source # 5 – Exposure class C-2

Number of cycles :



Comments :

Performed by : Alexandre Lacroix, tech.
Date : 2016-08-31

Sample : Source # 5 – Exposure class C-2

Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.01

Comments :



Mass loss after 7 cycles (kg/m²) 0.04

Cumulative mass loss (kg/m²) 0.04

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-07

Sample :	Source # 5 – Exposure class C-2		
Number of cycles :	After 21 freeze-thaw cycles		
			
Mass loss after 21 cycles (kg/m ²)	0.02	Mass loss after 21 cycles (kg/m ²)	0.03
Cumulative mass loss (kg/m ²)	0.03	Cumulative mass loss (kg/m ²)	0.07
Comments :	Comments :		

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-21

Sample : Source # 5 – Exposure class C-2

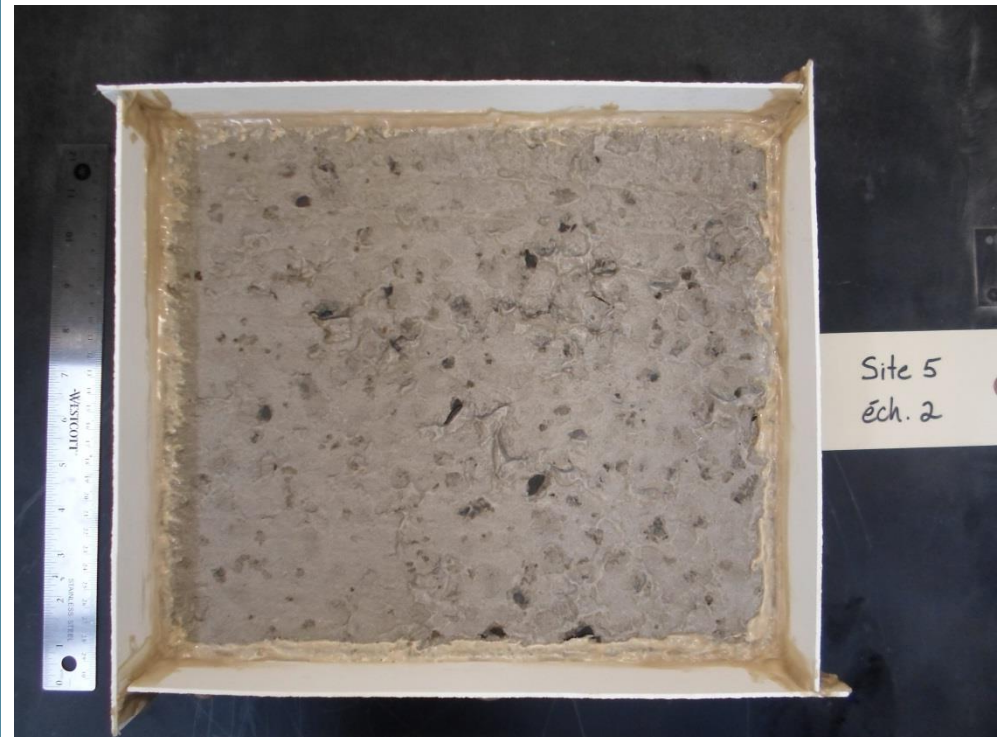
Number of cycles : After 35 freeze-thaw cycles



Mass loss after 35 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.04

Comments :



Mass loss after 35 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.10

comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-05

Sample : Source # 5 – Exposure class C-2

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.05

Comments : Index 2-A - No significant scaling of surface mortar, but small number of popouts observed



Mass loss after 56 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.13

Comments : Index 2-A - No significant scaling of surface mortar, but small number of popouts observed

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-26

Source #5
Exposure class C-2
(Second trial)

PHOTOS – RESISTANCE TO SCALING (BNQ 2621-905/2012)

Sample :	Source # 5 – Exposure class C-2 (Second trial)	
Number of cycles :		
n/a		n/a
Comments :		

Performed by : Alexandre Lacroix, tech.

Date : 2016-12-06

Sample : Source # 5 – Exposure class C-2 (Second trial)

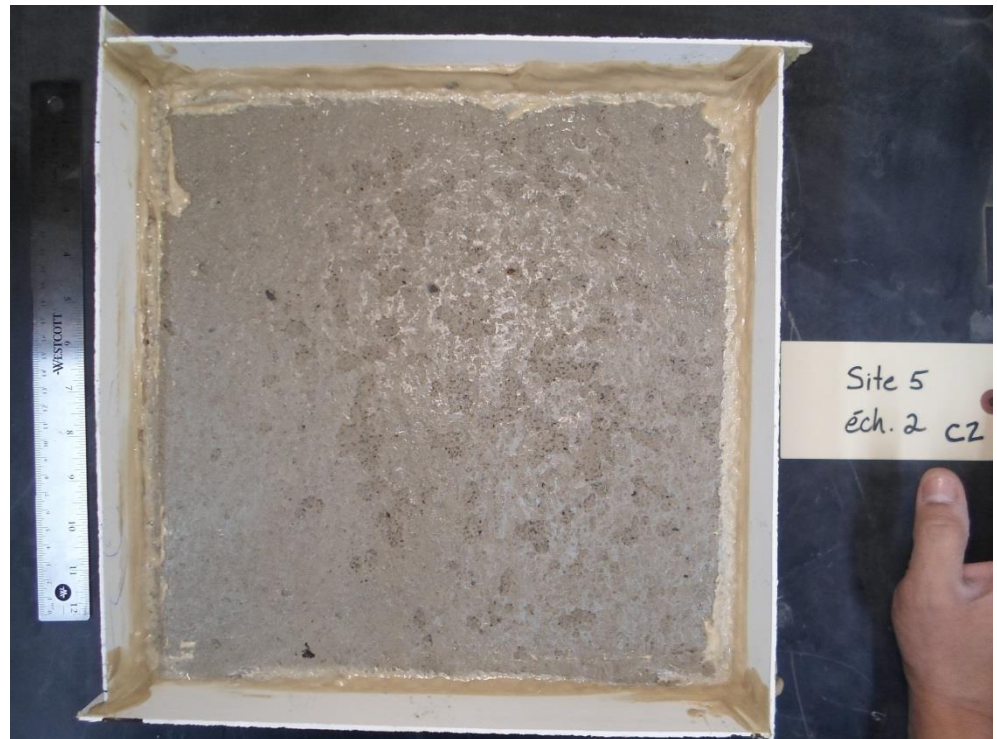
Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.08

Cumulative mass loss (kg/m²) 0.08

Comments :



Mass loss after 7 cycles (kg/m²) 0.08

Cumulative mass loss (kg/m²) 0.08

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-12-13

Sample : Source # 5 – Exposure class C-2 (Second trial)

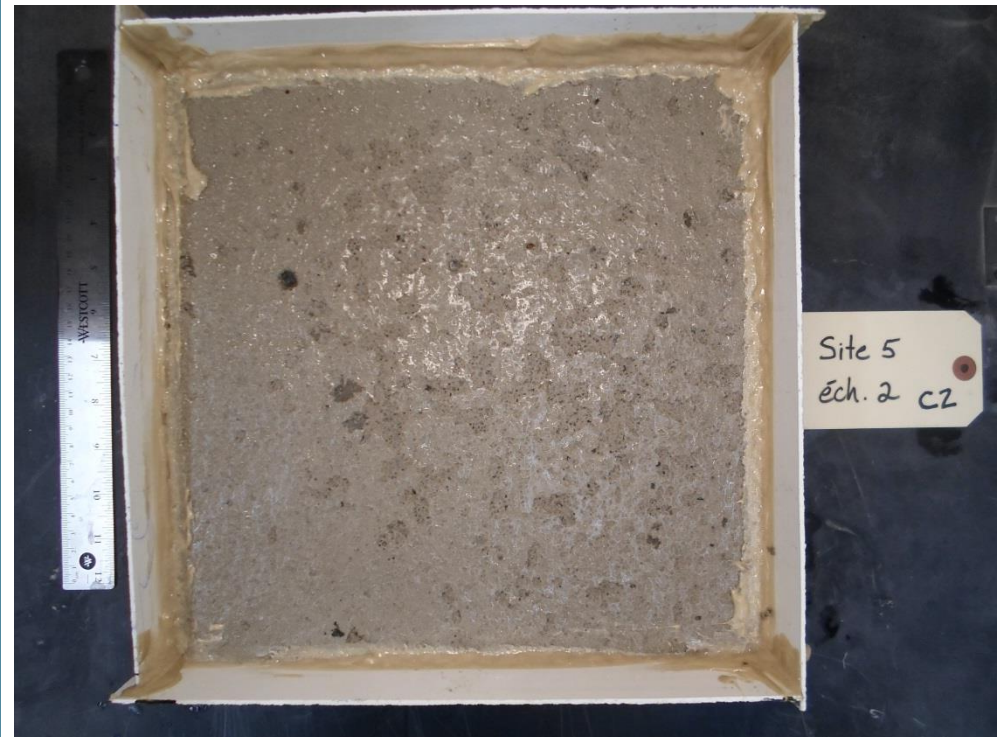
Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.09

Comments :



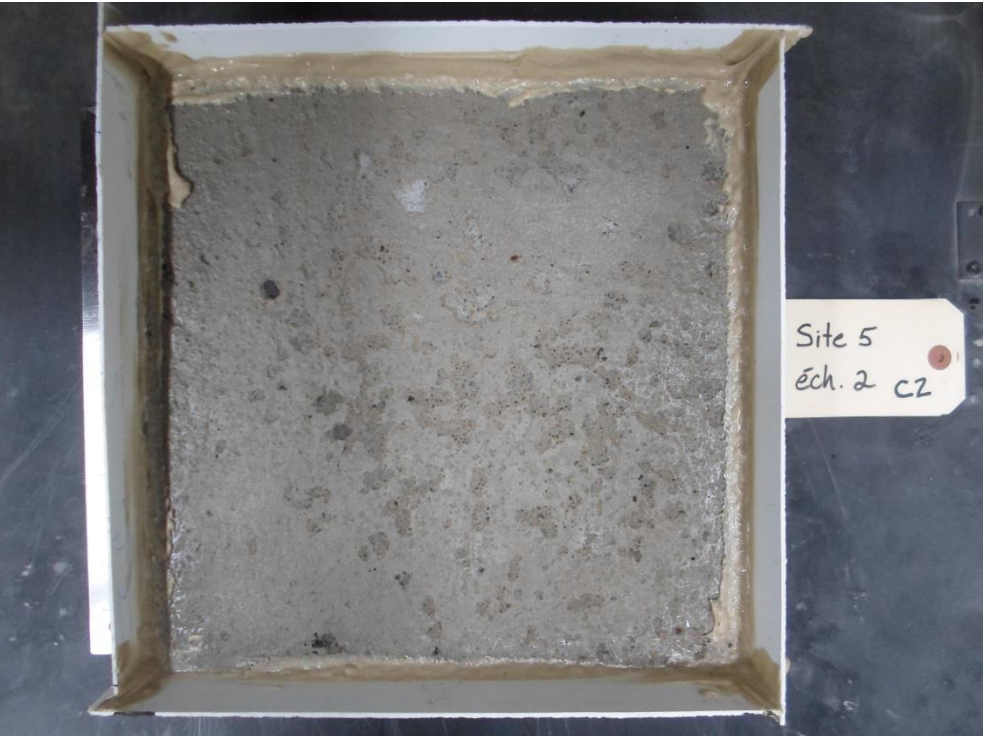
Mass loss after 21 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.11

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-12-27

Sample :	Source # 5 – Exposure class C-2 (Second trial)			
Number of cycles :	After 35 freeze-thaw cycles			
				
Mass loss after 35 cycles (kg/m ²)	0.02	Mass loss after 35 cycles (kg/m ²)	0.01	
Cumulative mass loss (kg/m ²)	0.11	Cumulative mass loss (kg/m ²)	0.12	
Comments :			Comments :	

Performed by : Alexandre Lacroix, tech.

Date : 2017-01-10

Sample : Source # 5 – Exposure class C-2 (Second trial)

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.00

Cumulative mass loss (kg/m²) 0.11

Comments : Index 2-A - No significant scaling of surface mortar, but small number of popouts observed



Mass loss after 56 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.13

Comments : Index 2-A - No significant scaling of surface mortar, but small number of popouts observed

Performed by : Alexandre Lacroix, tech.

Date : 2017-01-31

Source #11
Exposure class C-2

Sample : Source # 11 – Exposure class C-2

Number of cycles :



Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-08-31

Sample : Source # 11 – Exposure class C-2

Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.05

Comments :



Mass loss after 7 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.03

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-07

Sample : Source # 11 – Exposure class C-2

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.06

Comments :



Mass loss after 21 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.05

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-21

Sample : Source # 11 – Exposure class C-2

Number of cycles : After 35 freeze-thaw cycles



Mass loss after 35 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.07

Comments :

Perte individuelle à 35 cycles (kg/m²) 0.01

Perte individuelle cumulative (kg/m²) 0.06

Évaluation visuelle :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-05

Sample : Source # 11 – Exposure class C-2

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.07

Comments : Index 2-A - No significant scaling of surface mortar, but small number of popouts observed



Mass loss after 56 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.06

Comments : Index 2-A - No significant scaling of surface mortar, but small number of popouts observed

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-26

Source #14
Exposure class C-2

Sample : Source # 14 – Exposure Class C-2

Number of cycles :



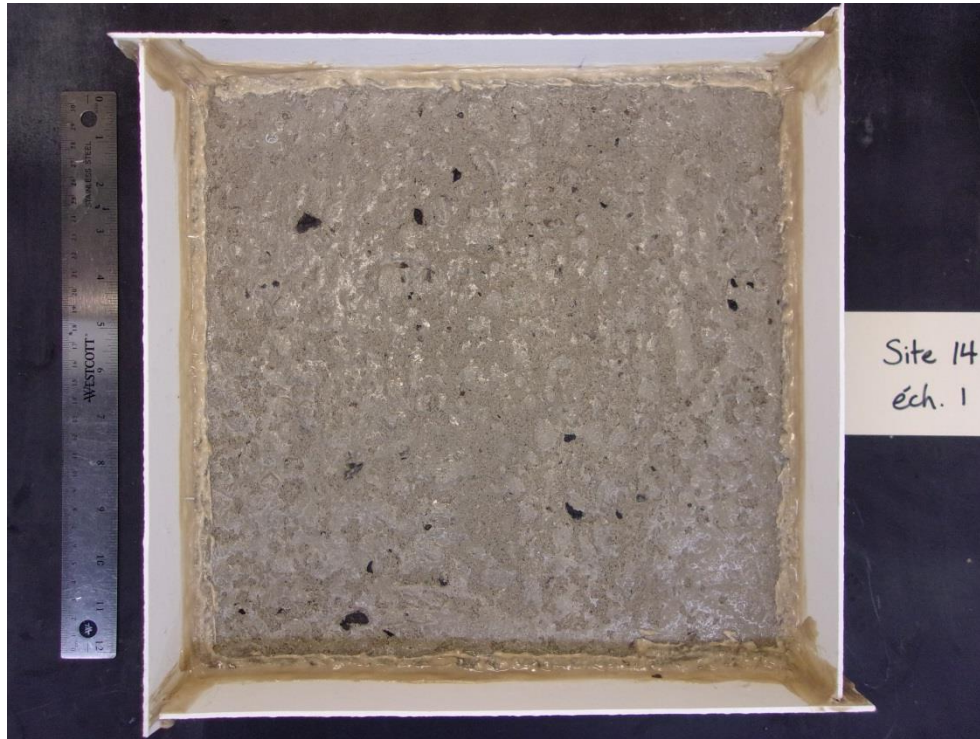
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-08-31

Sample : Source # 14 – Exposure class C-2

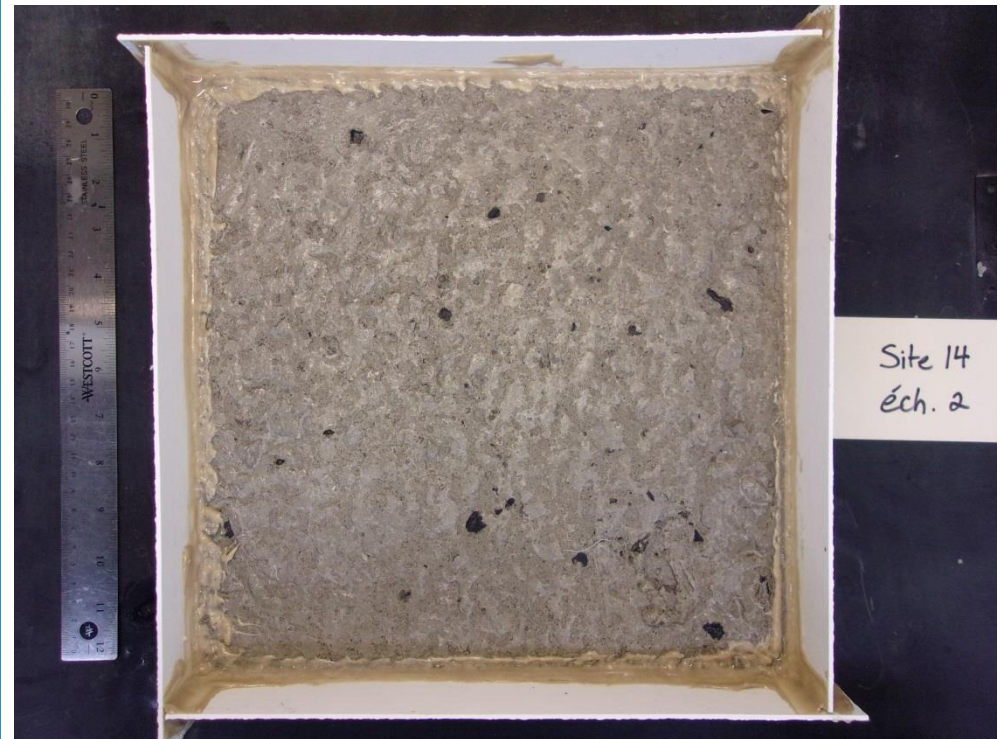
Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.19

Cumulative mass loss (kg/m²) 0.19

Comments :



Mass loss after 7 cycles (kg/m²) 0.23

Cumulative mass loss (kg/m²) 0.23

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-07

Sample : Source # 14 – Exposure class C-2

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.24

Comments :



Mass loss after 21 cycles (kg/m²) 0.10

Cumulative mass loss (kg/m²) 0.33

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-21

Sample : Source # 14 – Exposure class C-2

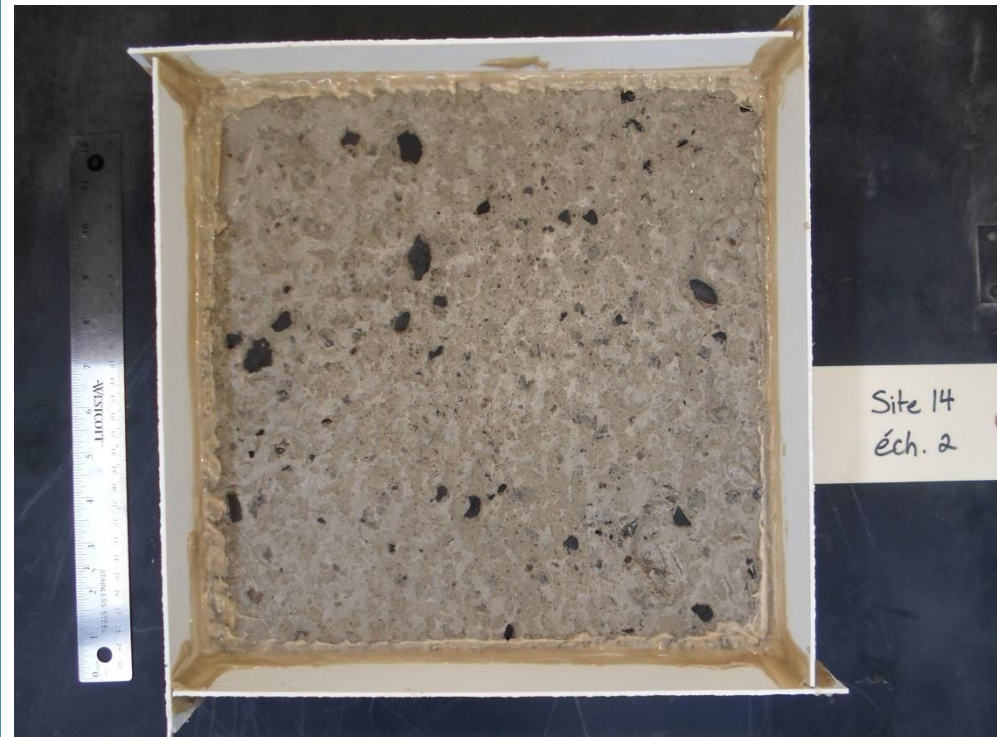
Number of cycles : After 35 freeze-thaw cycles



Mass loss after 35 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.29

Comments :



Mass loss after 35 cycles (kg/m²) 0.06

Cumulative mass loss (kg/m²) 0.39

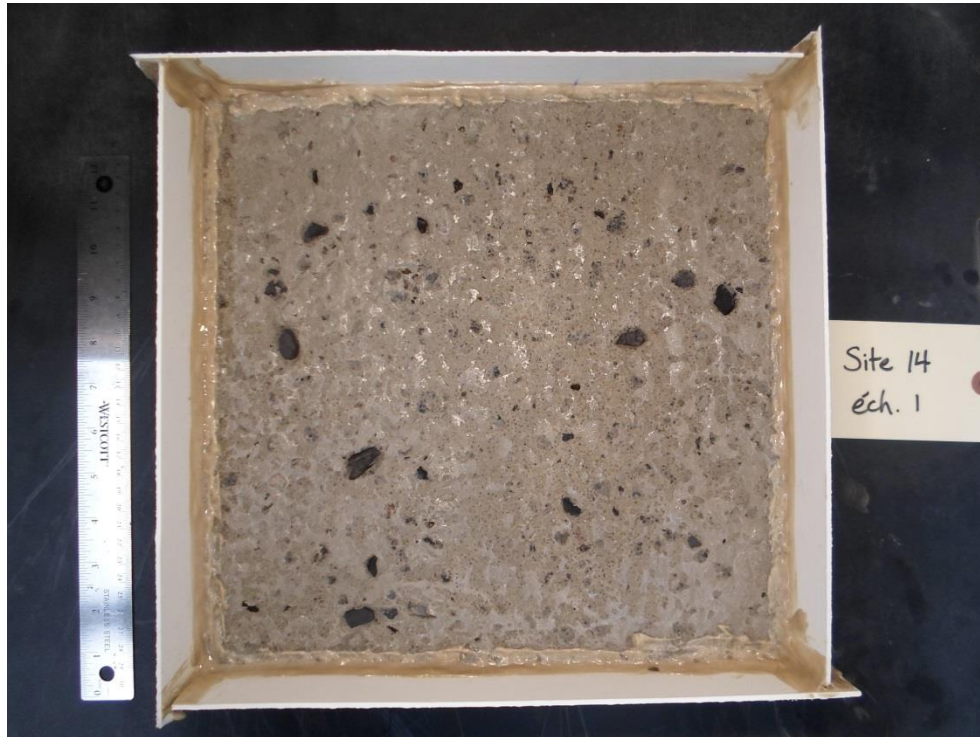
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-05

Sample : Source # 14 – Exposure class C-2

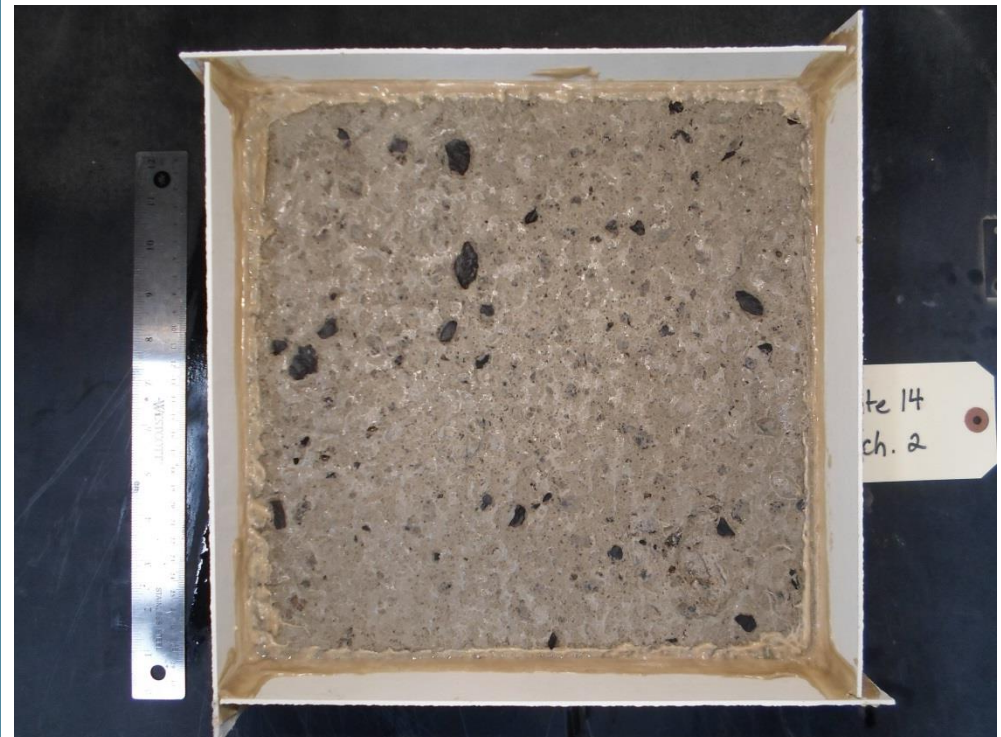
Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.07

Cumulative mass loss (kg/m²) 0.36

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate



Mass loss after 56 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.44

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-26

Source #17
Exposure class C-2

Sample : Source # 17 – Exposure class C-2

Number of cycles :

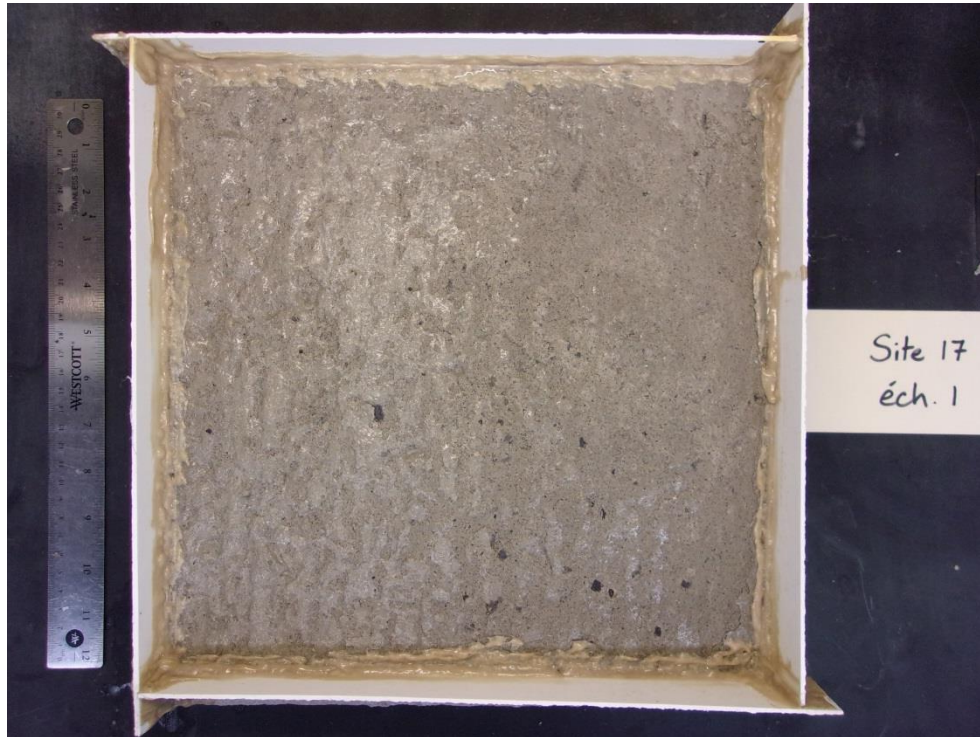


Comments :

Performed by : Alexandre Lacroix, tech.
Date : 2016-08-31

Sample : Source # 17 – Exposure class C-2

Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.25

Cumulative mass loss (kg/m²) 0.25

Comments :



Mass loss after 7 cycles (kg/m²) 0.19

Cumulative mass loss (kg/m²) 0.19

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-07

Sample : Source # 17 – Exposure class C-2

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.28

Comments :

Mass loss after 21 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.24

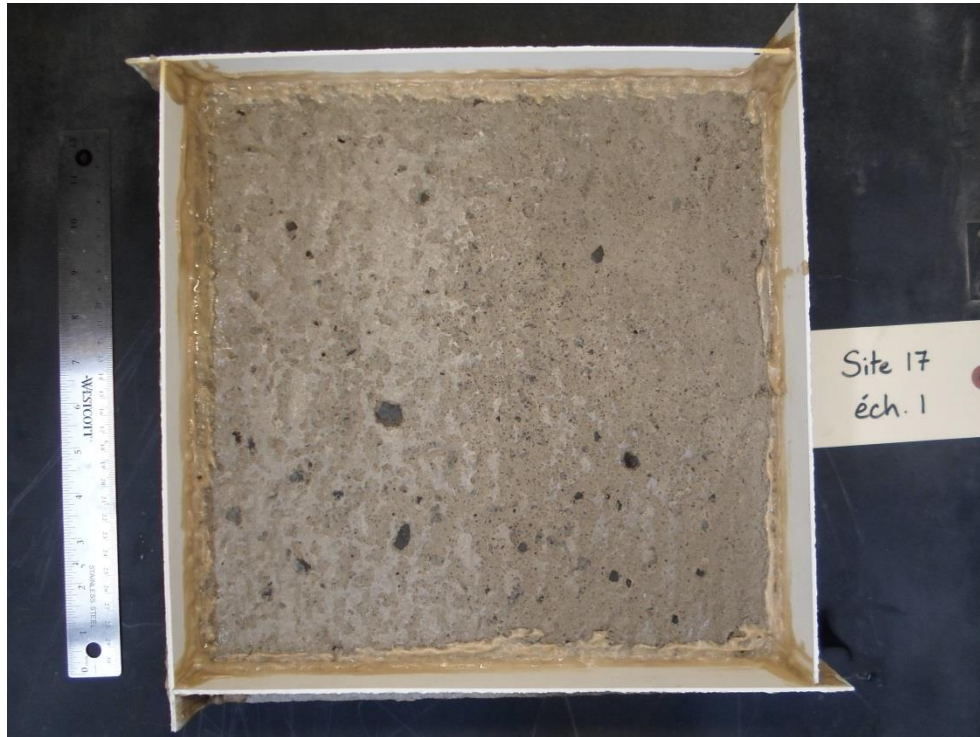
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-21

Sample : Source # 17 – Exposure class C-2

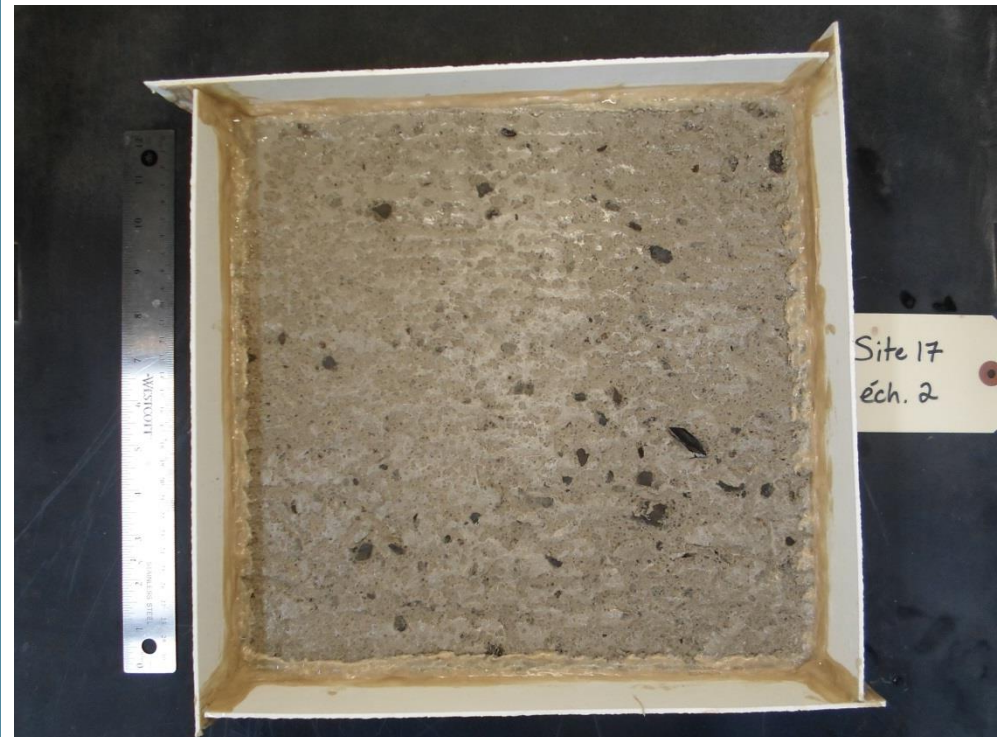
Number of cycles : After 35 freeze-thaw cycles



Mass loss after 35 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.30

Comments :



Mass loss after 35 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.27

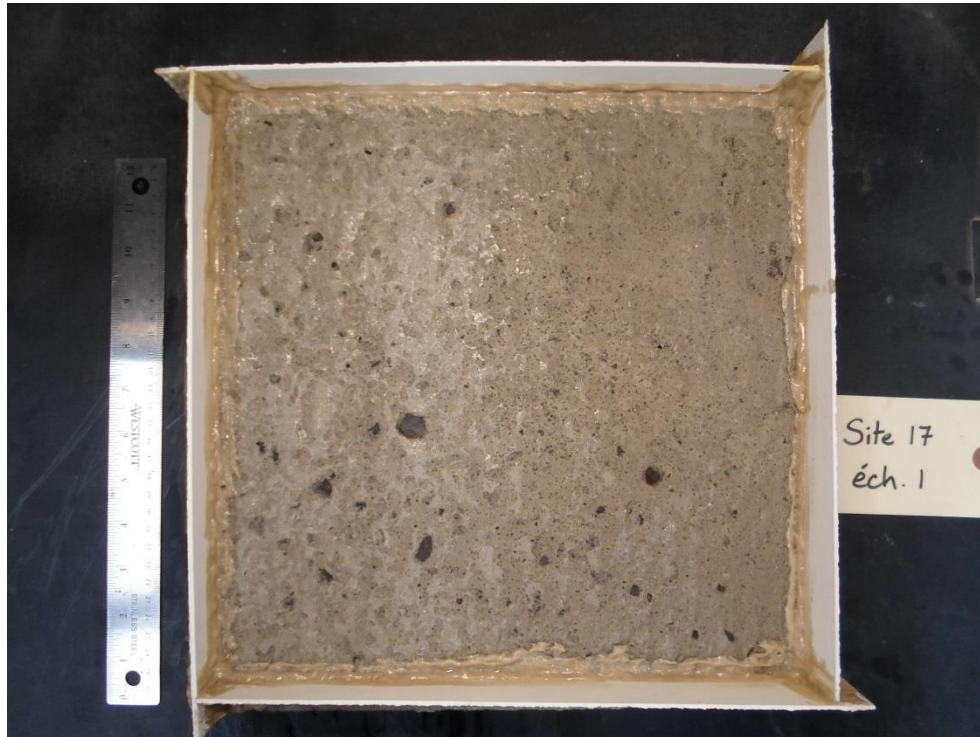
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-05

Sample : Source # 17 – Exposure class C-2

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.32

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate



Mass loss after 56 cycles (kg/m²) 0.04

Cumulative mass loss (kg/m²) 0.31

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate

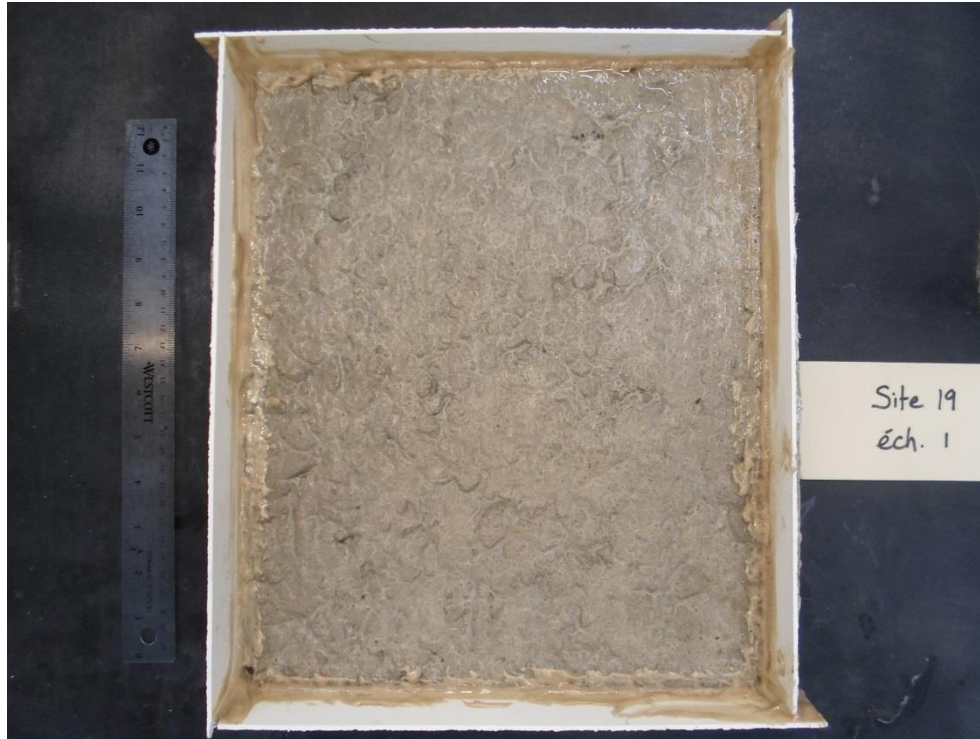
Performed by : Alexandre Lacroix, tech.

Date : 2016-10-26

Source #19
Exposure class C-2

Sample : Source # 19 – Exposure class C-2

Number of cycles :

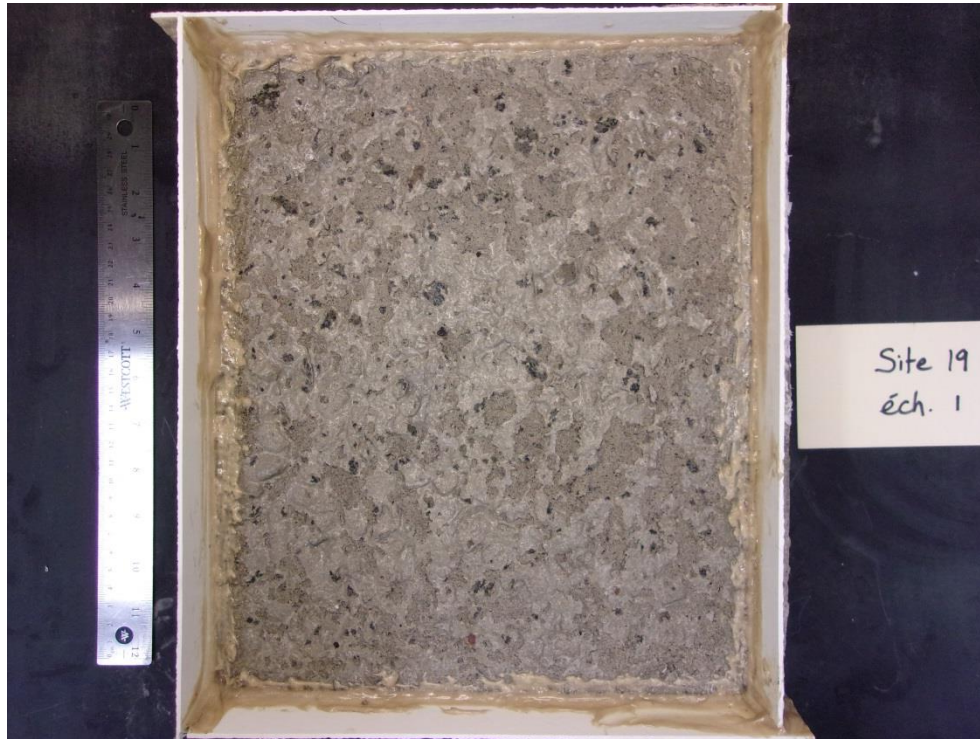


Comments :

Performed by : Alexandre Lacroix, tech.
Date : 2016-09-01

Sample : Source # 19 – Exposure class C-2

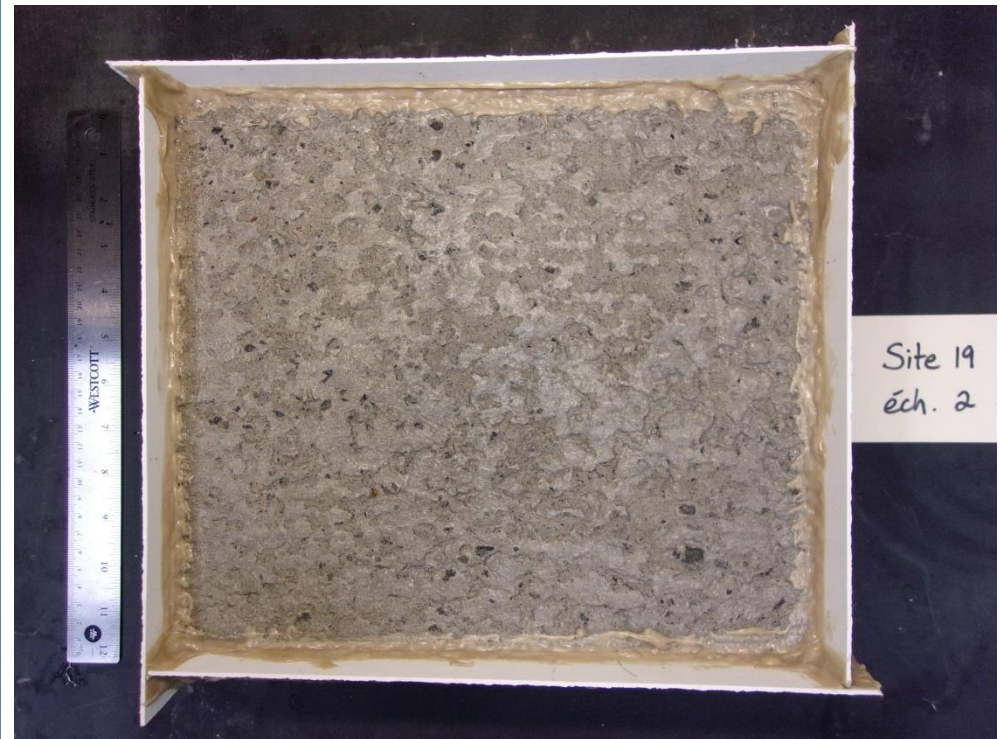
Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.27

Cumulative mass loss (kg/m²) 0.27

Comments :



Mass loss after 7 cycles (kg/m²) 0.27

Cumulative mass loss (kg/m²) 0.27

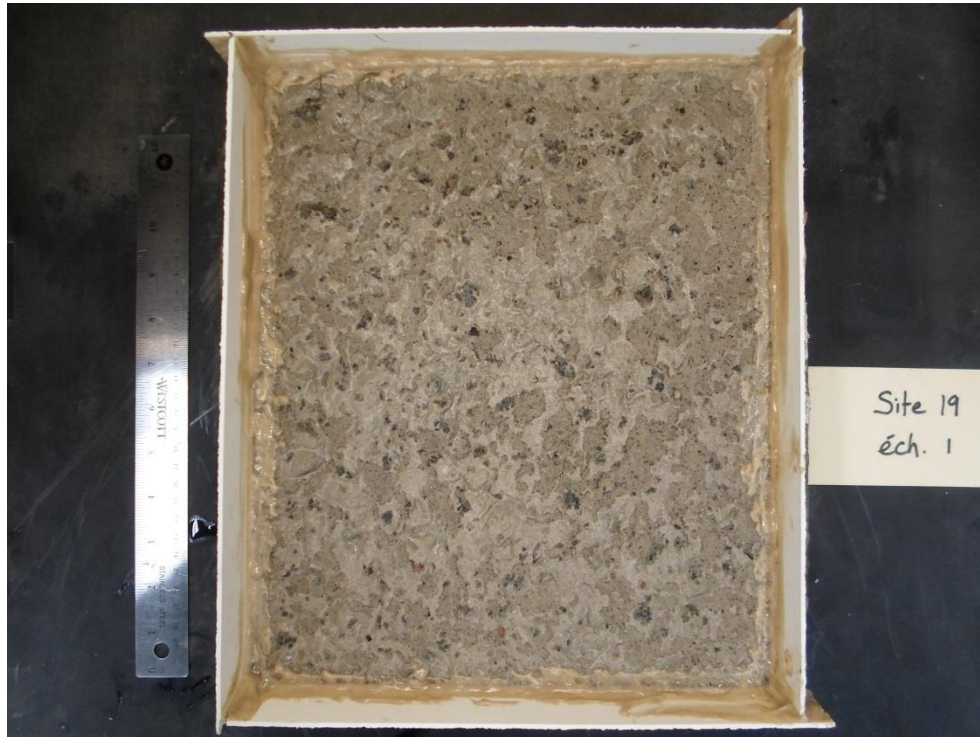
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-08

Sample : Source # 19 – Exposure class C-2

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.04

Cumulative mass loss (kg/m²) 0.31

Comments :



Mass loss after 21 cycles (kg/m²) 0.04

Cumulative mass loss (kg/m²) 0.31

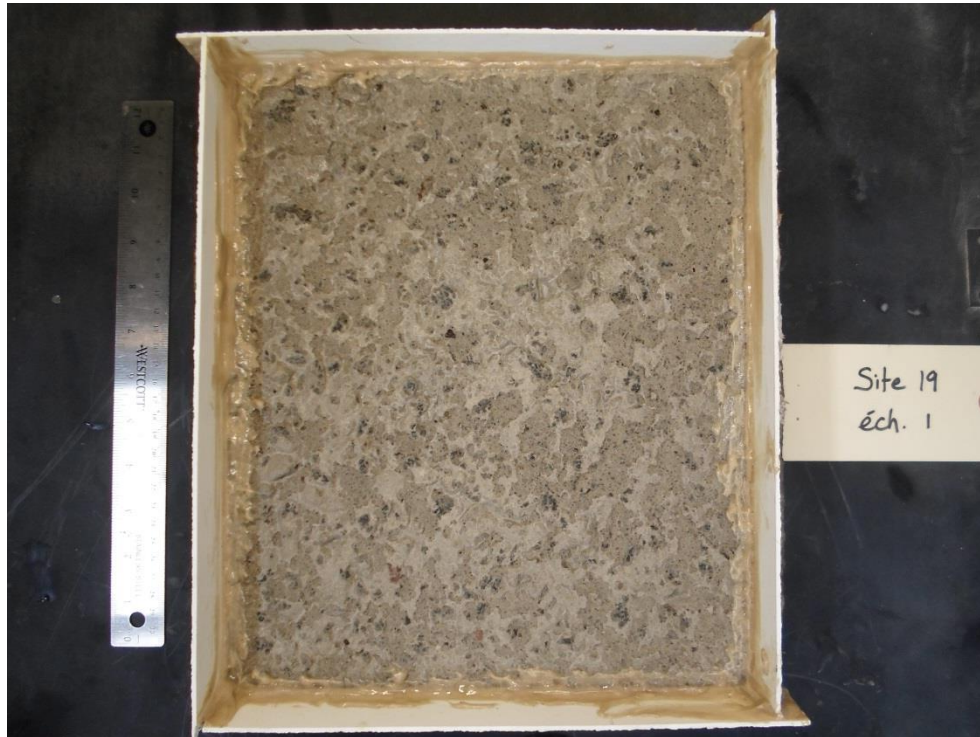
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-22

Sample : Source # 19 – Exposure class C-2

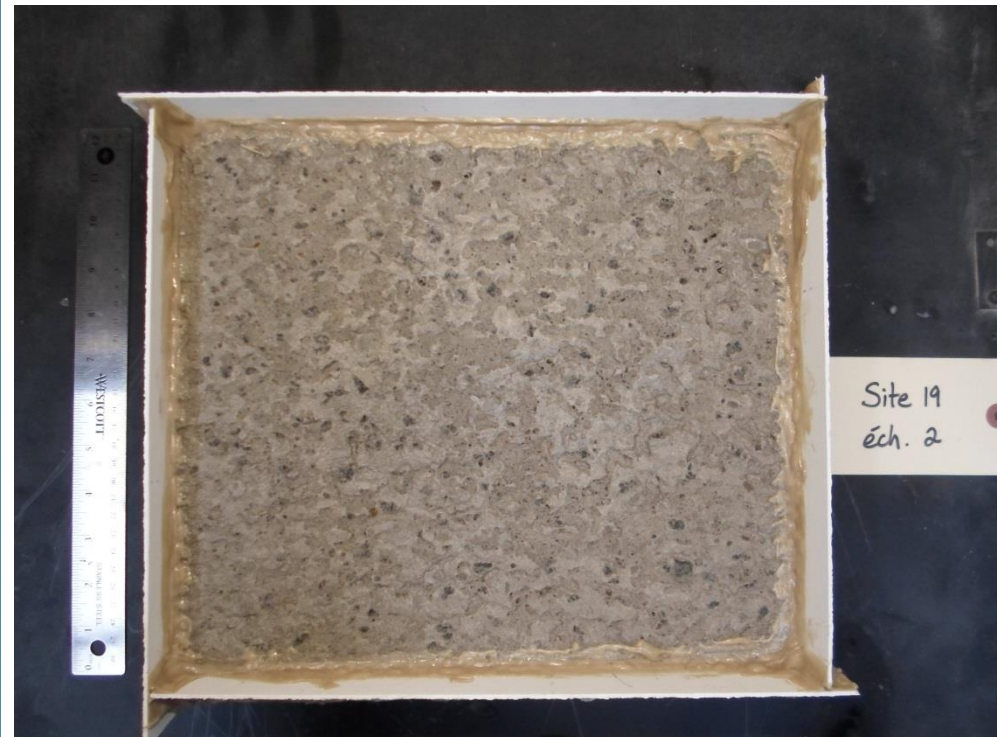
Number of cycles : After 35 freeze-thaw cycles



Mass loss after 35 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.34

Comments :



Mass loss after 35 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.33

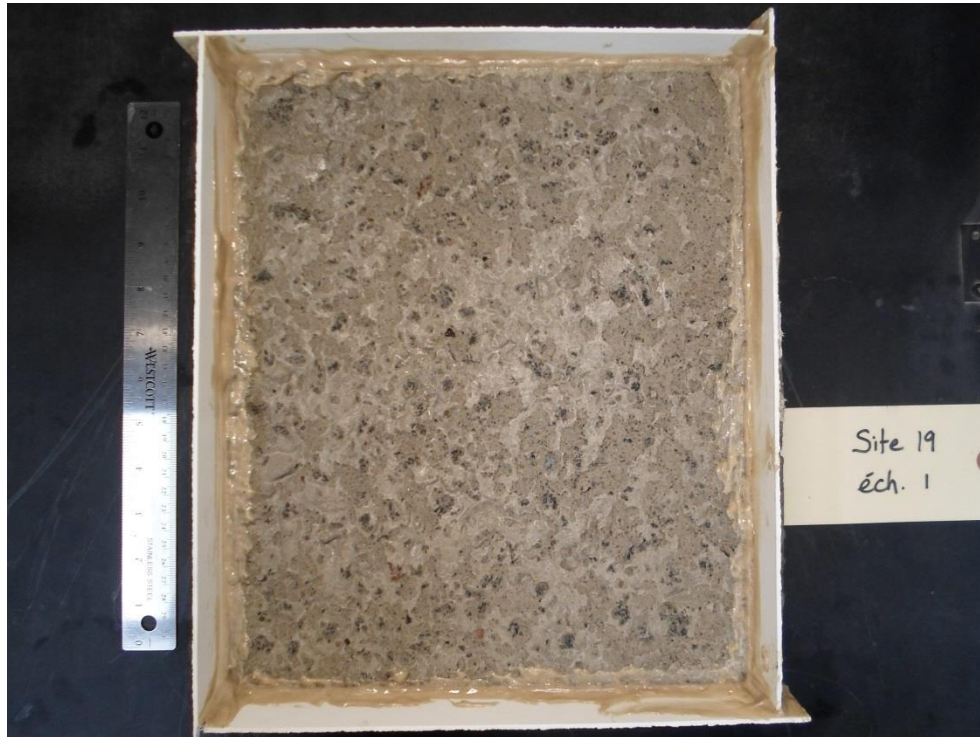
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-06

Sample : Source # 19 – Exposure class C-2

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.37

Comments : Index 4 - Combination of fragmented coarse aggregate mainly with scaling of surface mortar



Mass loss after 56 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.36

Comments : Index 4 - Combination of fragmented coarse aggregate mainly with scaling of surface mortar

Performed by : Alexandre Lacroix, tech.

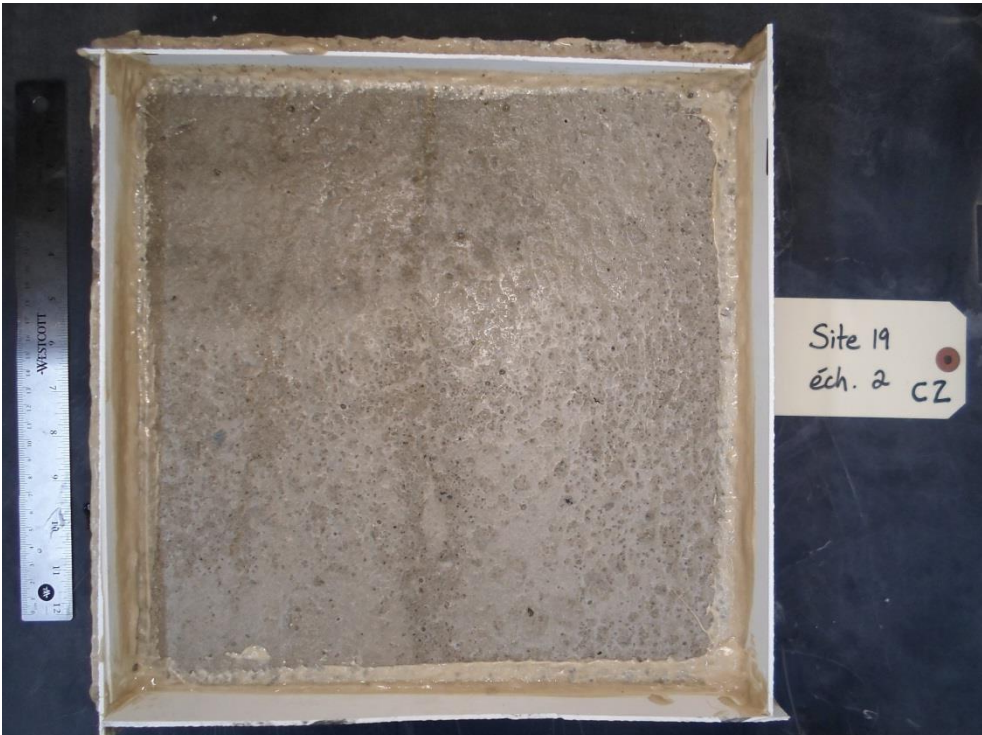
Date : 2016-10-27

Source #19
Exposure class C-2
(Second trial)

Sample :	Source # 19 – Exposure class C-2 (Second trial)	
Number of cycles :		
n/a		n/a
Comments :		

Performed by : Alexandre Lacroix, tech.

Date : 2016-12-06

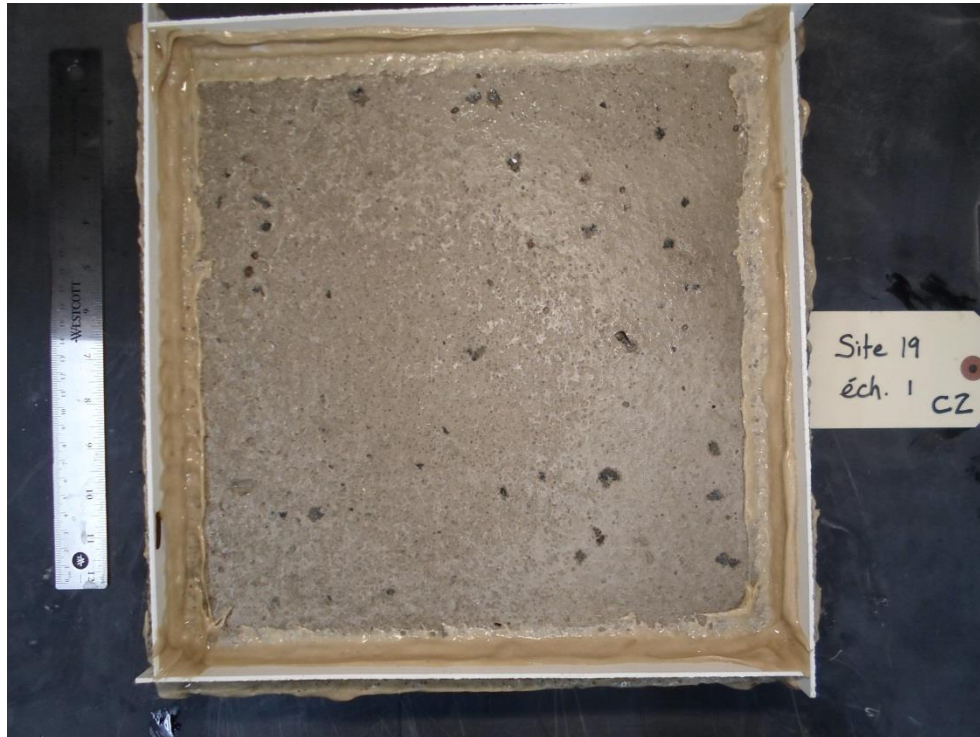
Sample :	Source # 19 – Exposure class C-2 (Second trial)		
Number of cycles :	After 7 freeze-thaw cycles		
 			
Mass loss after 7 cycles (kg/m²)	0.04	Mass loss after 7 cycles (kg/m²)	0.02
Cumulative mass loss (kg/m²)	0.04	Cumulative mass loss (kg/m²)	0.02
Comments :	Comments :		

Performed by : Alexandre Lacroix, tech.

Date : 2016-12-13

Sample : Source # 19 – Exposure class C-2 (Second trial)

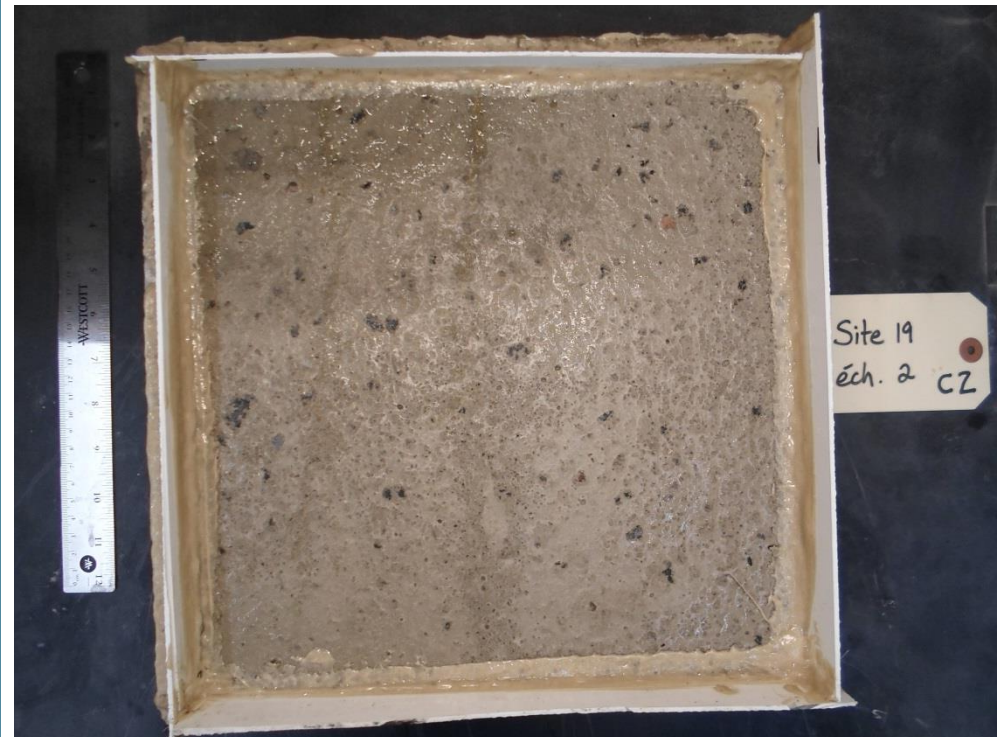
Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.05

Comments :



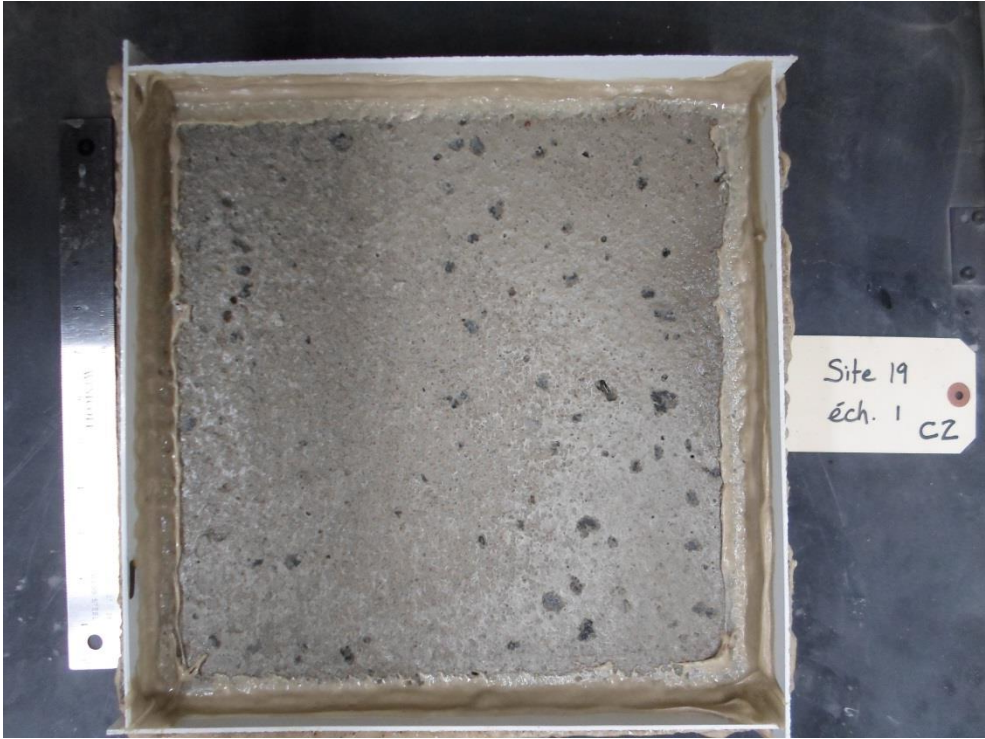
Mass loss after 21 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.04

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-12-27

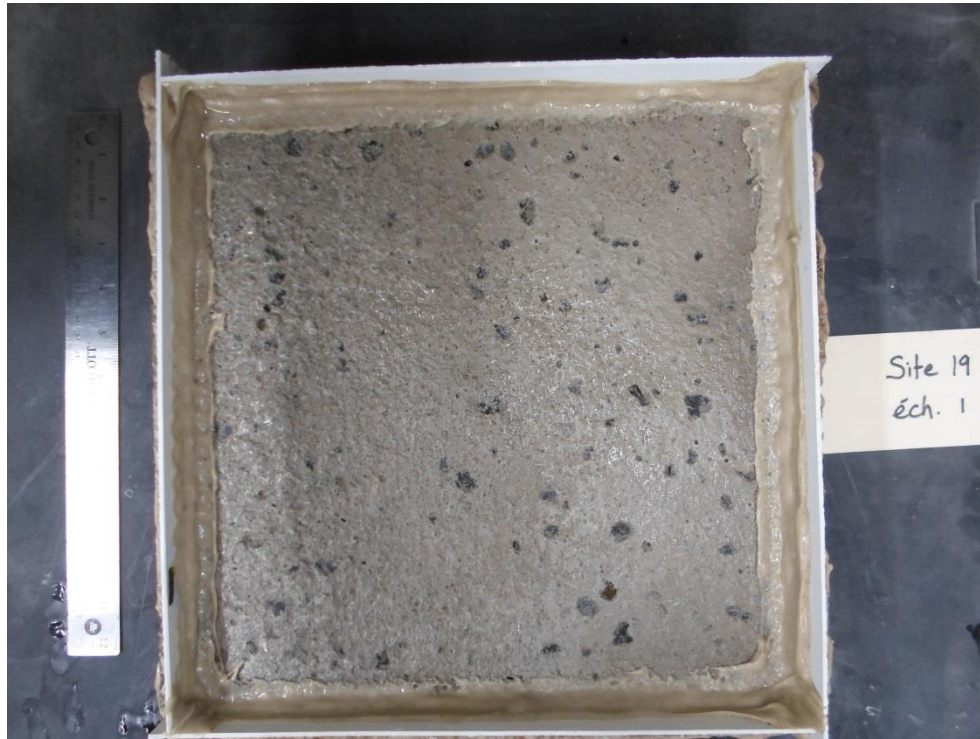
Sample :	Source # 19 – Exposure class C-2 (Second trial)			
Number of cycles :	After 35 freeze-thaw cycles			
				
Mass loss after 35 cycles (kg/m ²)	0.00	Mass loss after 35 cycles (kg/m ²)	0.01	
Cumulative mass loss (kg/m ²)	0.05	Cumulative mass loss (kg/m ²)	0.05	
Comments :			Comments :	

Performed by : Alexandre Lacroix, tech.

Date : 2017-01-10

Sample : Source # 19 – Exposure class C-2 (Second trial)

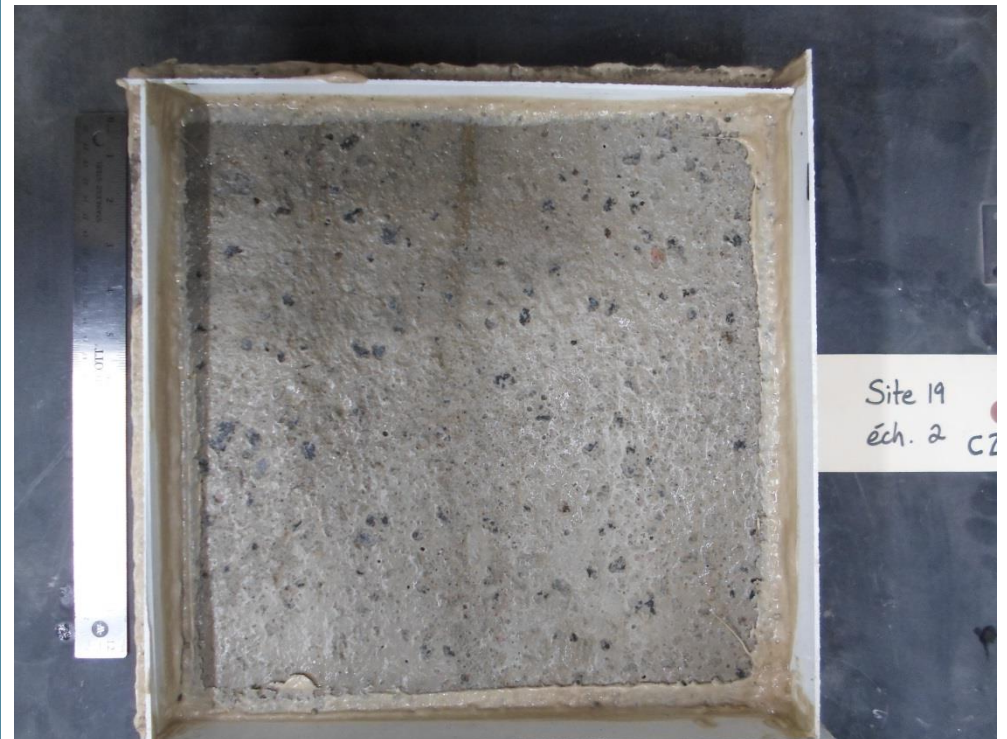
Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.06

Comments : Index 2-A - No significant scaling of surface mortar, but small number of popouts observed



Mass loss after 56 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.06

Comments : Index 2-A - No significant scaling of surface mortar, but small number of popouts observed

Performed by : Alexandre Lacroix, tech.

Date : 2017-01-31

Source #22
Exposure class C-2

Sample : Source # 22 – Exposure class C-2

Number of cycles :

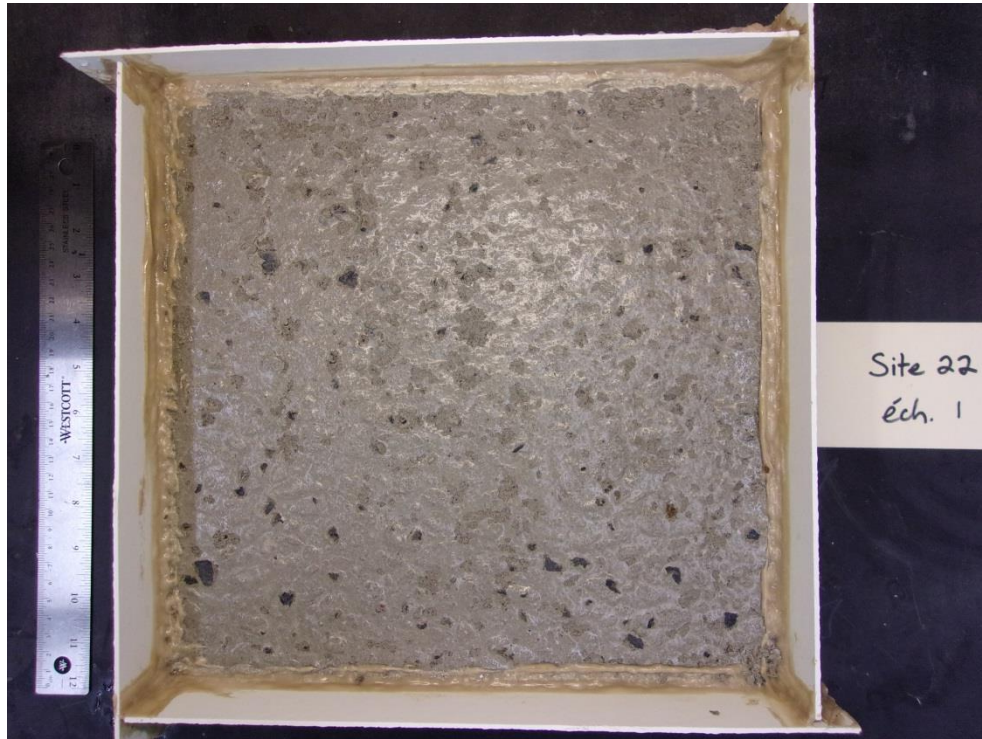


Comments :

Performed by : Alexandre Lacroix, tech.
Date : 2016-09-01

Sample : Source # 22 – Exposure class C-2

Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.07

Cumulative mass loss (kg/m²) 0.07

Comments :



Mass loss after 7 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.05

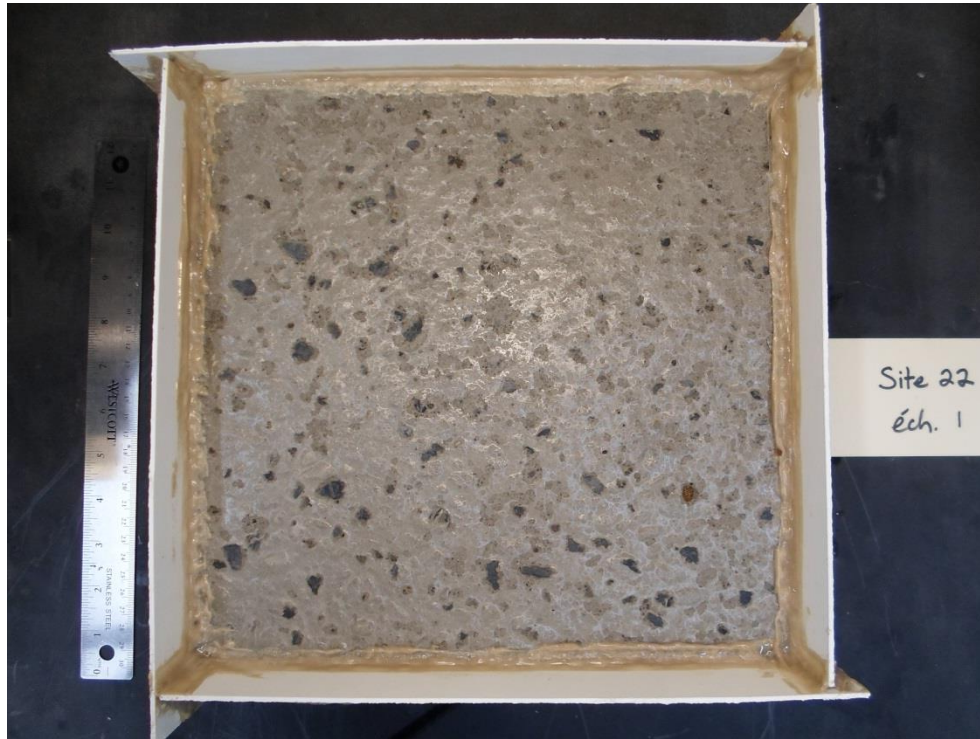
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-08

Sample : Source # 22 – Exposure class C-2

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.12

Comments :



Mass loss after 21 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.07

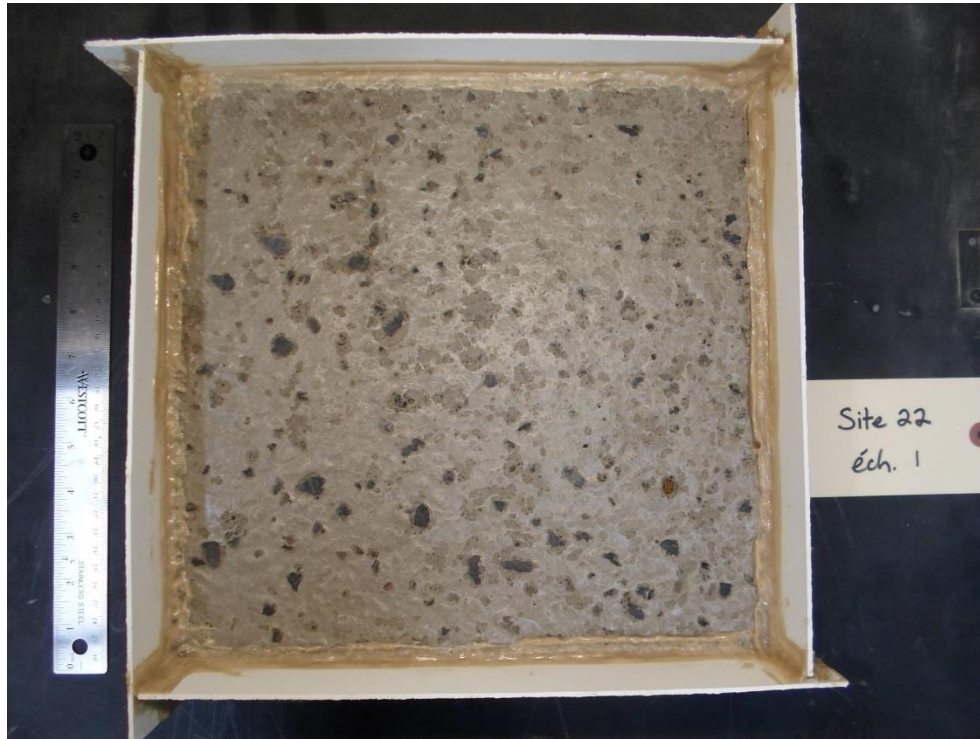
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-22

Sample : Source # 22 – Exposure class C-2

Number of cycles : After 35 freeze-thaw cycles



Mass loss after 35 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.14

Comments :



Mass loss after 35 cycles (kg/m²) 0.00

Cumulative mass loss (kg/m²) 0.07

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-06

Sample : Source # 22 – Exposure class C-2

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.16

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate



Mass loss after 56 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.08

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate

Performed by : Alexandre Lacroix, tech.

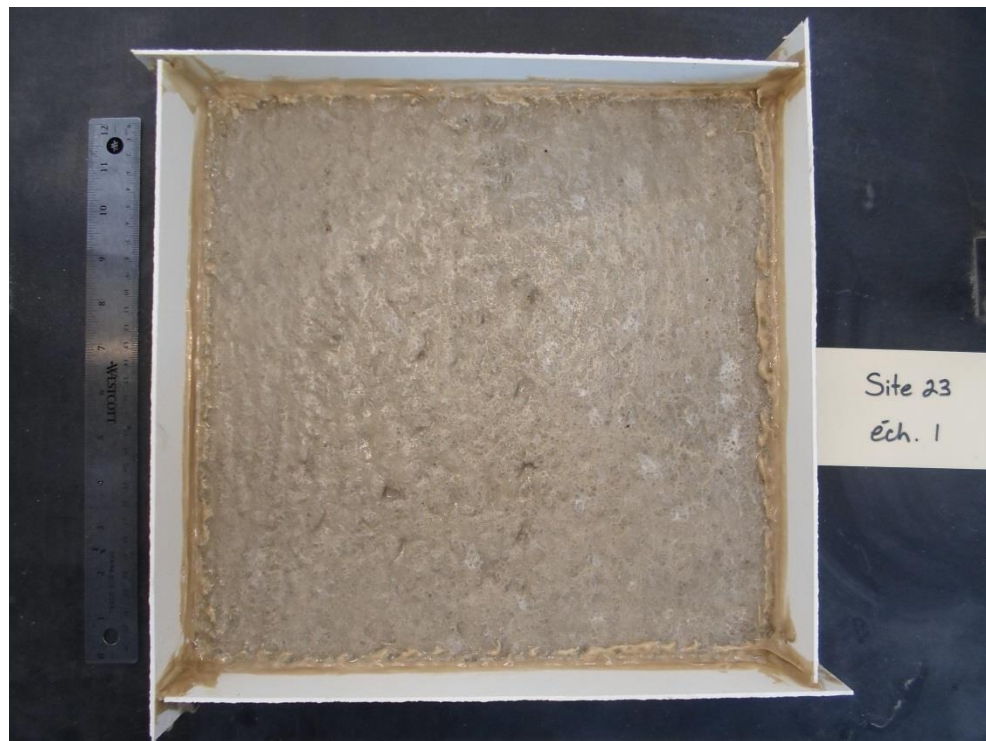
Date : 2016-10-27

Source #23
Exposure class C-2

PHOTOS – RESISTANCE TO SCALING (BNQ 2621-905/2012)

Sample : Source # 23 – Exposure class C-2

Number of cycles :



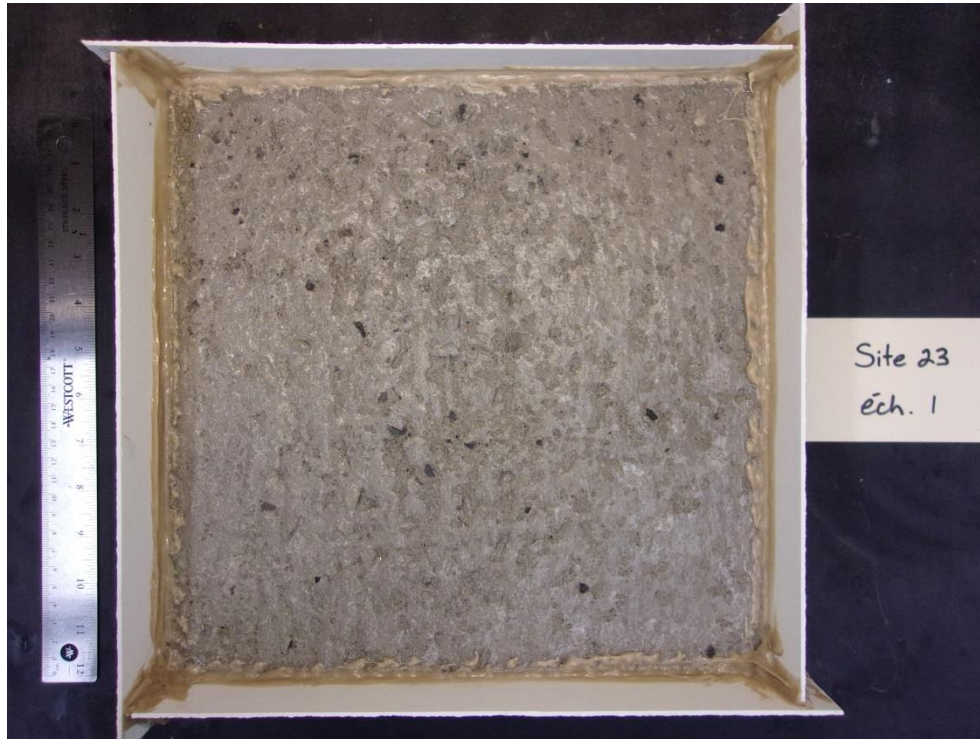
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-01

Sample : Source # 23 – Exposure class C-2

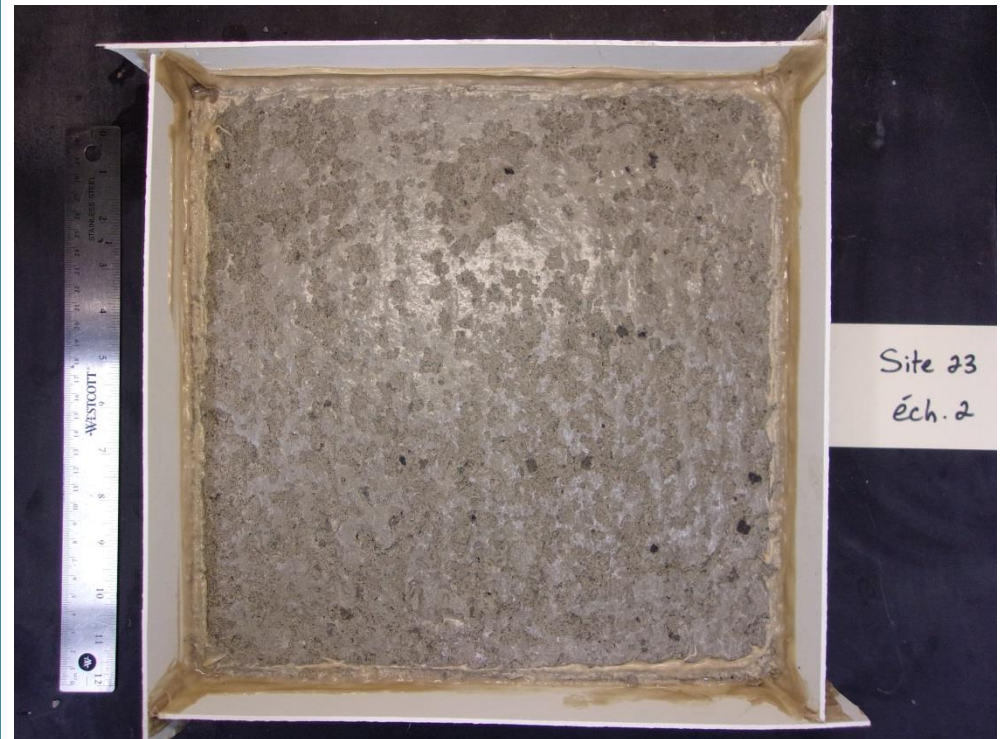
Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.09

Cumulative mass loss (kg/m²) 0.09

Comments :



Mass loss after 7 cycles (kg/m²) 0.20

Cumulative mass loss (kg/m²) 0.20

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-08

Sample : Source # 23 – Exposure class C-2

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.14

Comments :



Mass loss after 21 cycles (kg/m²) 0.04

Cumulative mass loss (kg/m²) 0.24

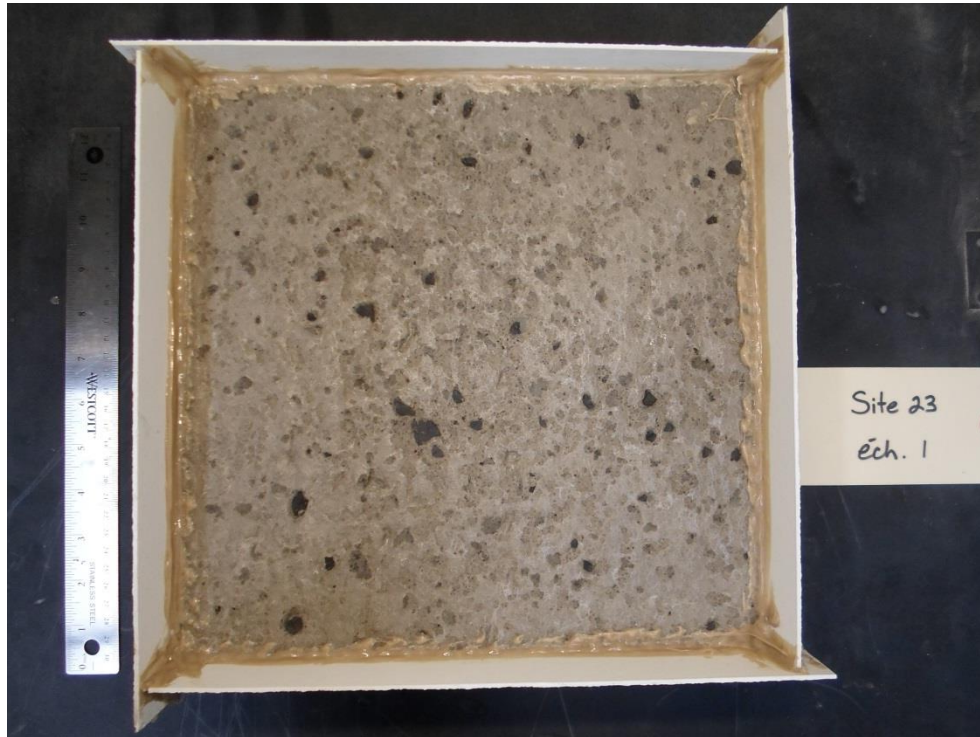
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-22

Sample : Source # 23 – Exposure class C-2

Number of cycles : After 35 freeze-thaw cycles



Mass loss after 35 cycles (kg/m²) 0.04

Cumulative mass loss (kg/m²) 0.18

Comments :



Mass loss after 35 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.27

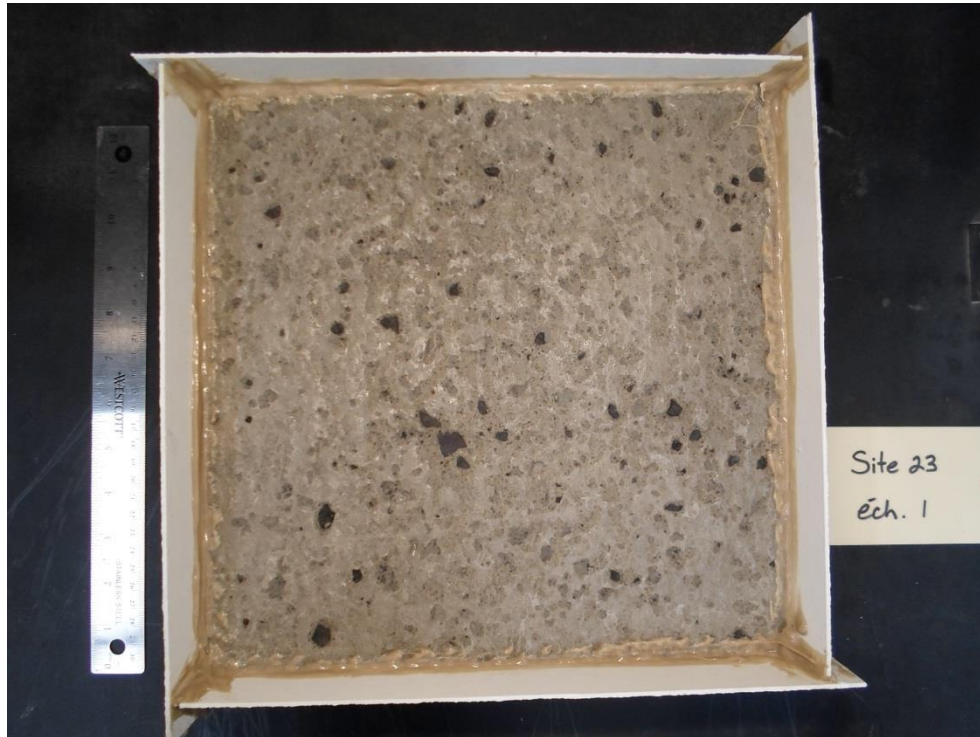
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-06

Sample : Source # 23 – Exposure class C-2

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.21

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate



Mass loss after 56 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.30

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-27

Source #26
Exposure class C-2

Sample : Source # 26 – Exposure class C-2

Number of cycles :



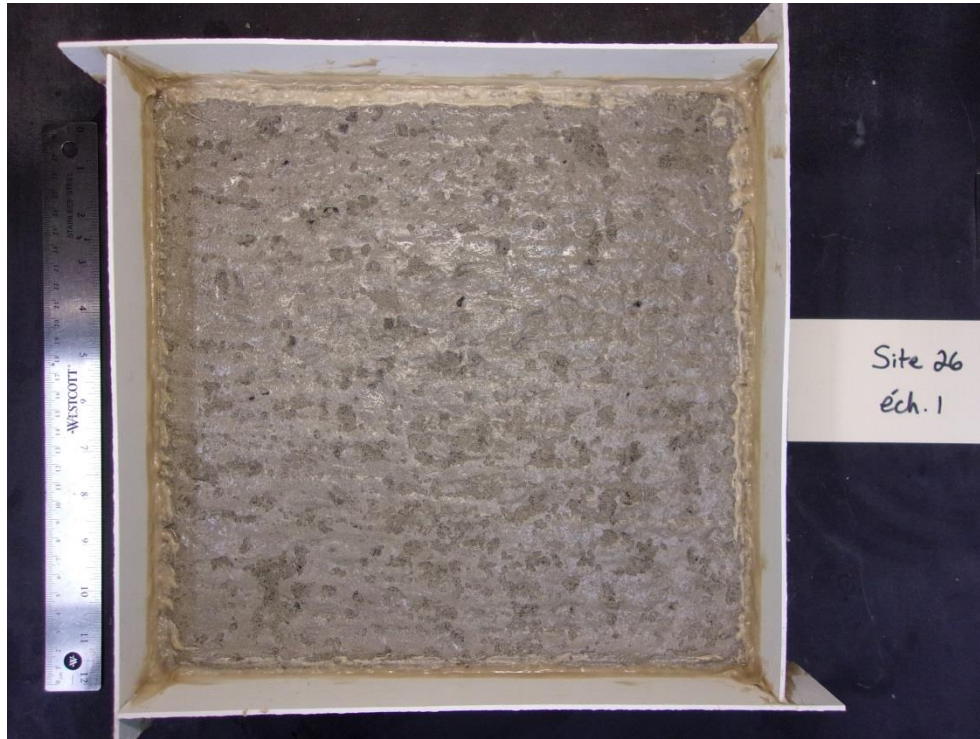
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-01

Sample : Source # 26 – Exposure class C-2

Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.10

Cumulative mass loss (kg/m²) 0.10

Comments :



Mass loss after 7 cycles (kg/m²) 0.22

Cumulative mass loss (kg/m²) 0.22

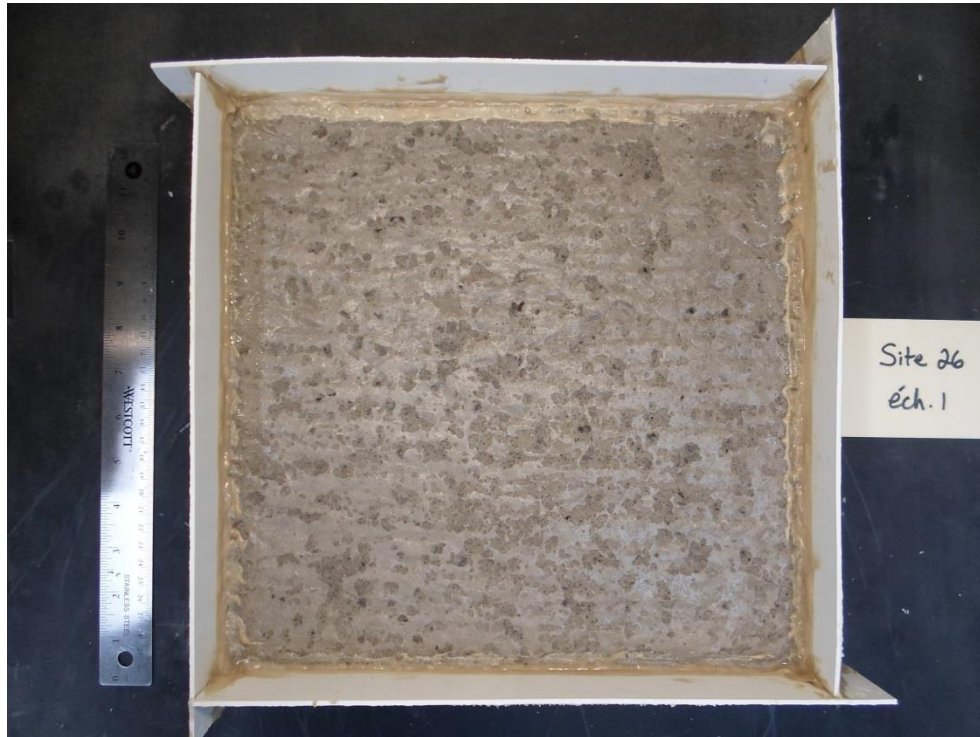
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-08

Sample : Source # 26 – Exposure class C-2

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.13

Comments :



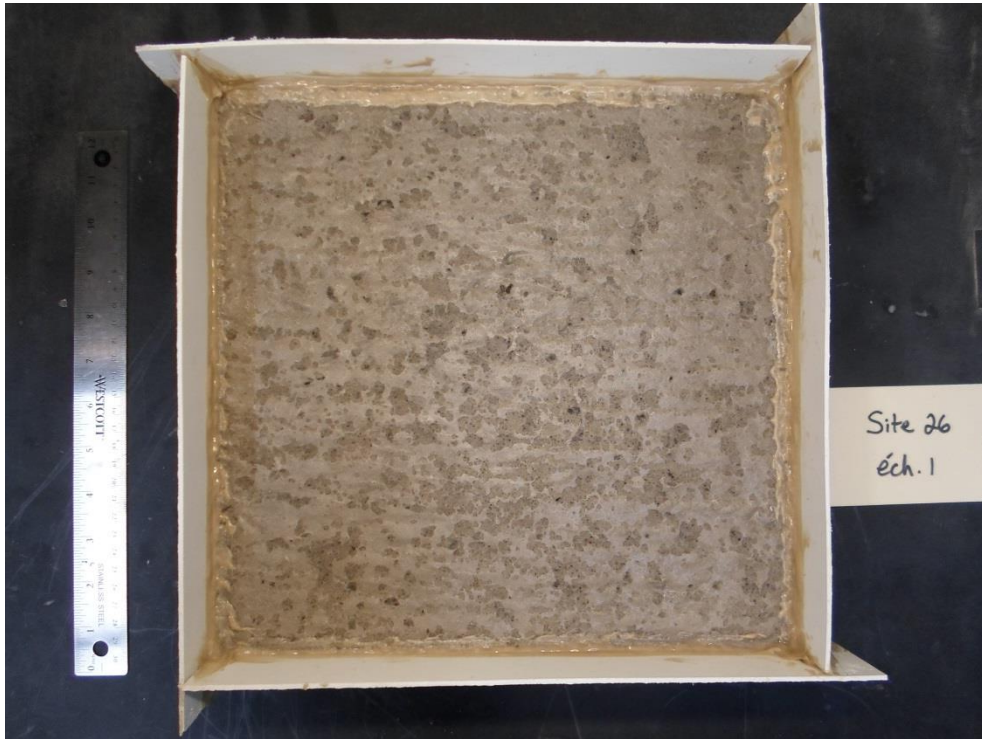
Mass loss after 21 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.25

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-22

Sample :	Source # 26 – Exposure class C-2		
Number of cycles :	After 35 freeze-thaw cycles		
 			
Mass loss after 35 cycles (kg/m²)	0.00	Mass loss after 35 cycles (kg/m²)	0.01
Cumulative mass loss (kg/m²)	0.13	Cumulative mass loss (kg/m²)	0.26
Comments :	Comments :		

Performed by : Alexandre Lacroix, tech.

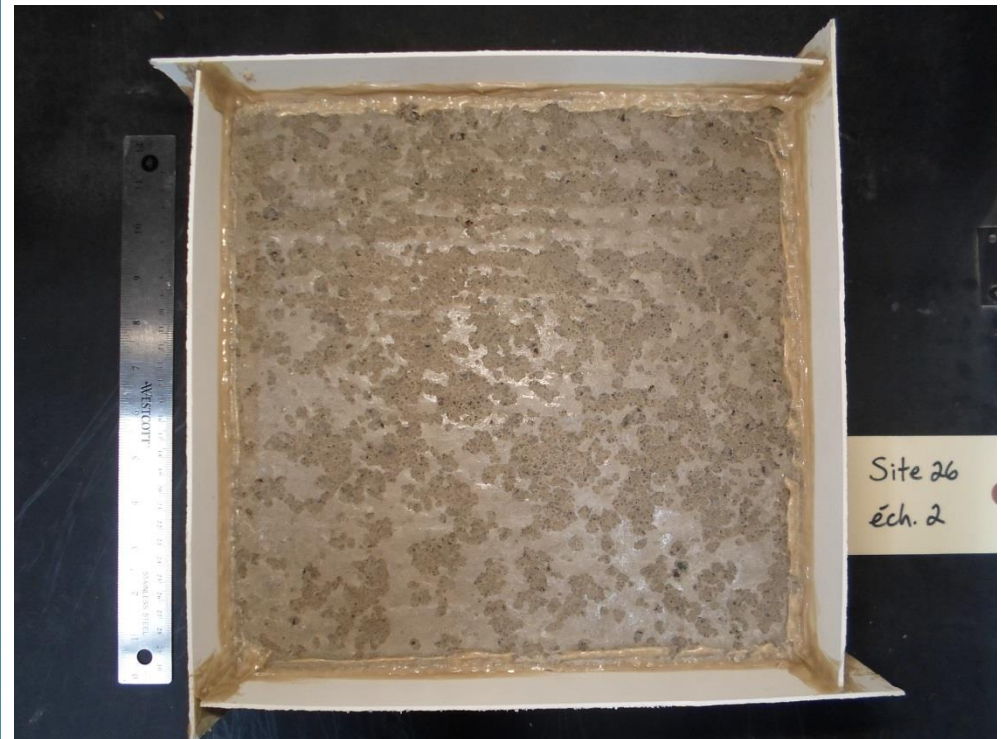
Date : 2016-10-06

Sample : Source # 26 – Exposure class C-2

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m ²)	0.01
Cumulative mass loss (kg/m ²)	0.14
Comments : Index 1-B - Significant scaling of surface mortar with no popouts observed	



Mass loss after 56 cycles (kg/m ²)	0.01
Cumulative mass loss (kg/m ²)	0.27
Comments : Index 1-B - Significant scaling of surface mortar with no popouts observed	

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-27

Source #5
Exposure class F-1

Sample : Source # 5 – Exposure class F-1

Number of cycles :



Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-08

Sample : Source # 5 – Exposure class F-1

Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.28

Cumulative mass loss (kg/m²) 0.28

Comments :



Mass loss after 7 cycles (kg/m²) 0.29

Cumulative mass loss (kg/m²) 0.29

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-15

Sample : Source # 5 – Exposure class F-1

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.31

Comments :



Mass loss after 21 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.31

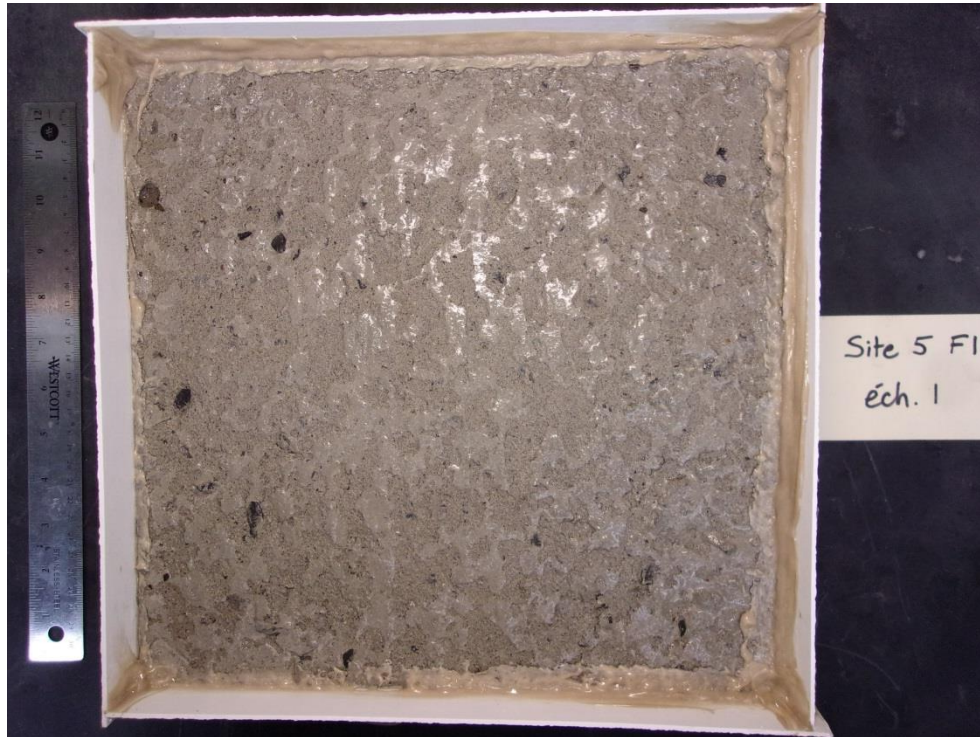
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-29

Sample : Source # 5 – Exposure class F-1

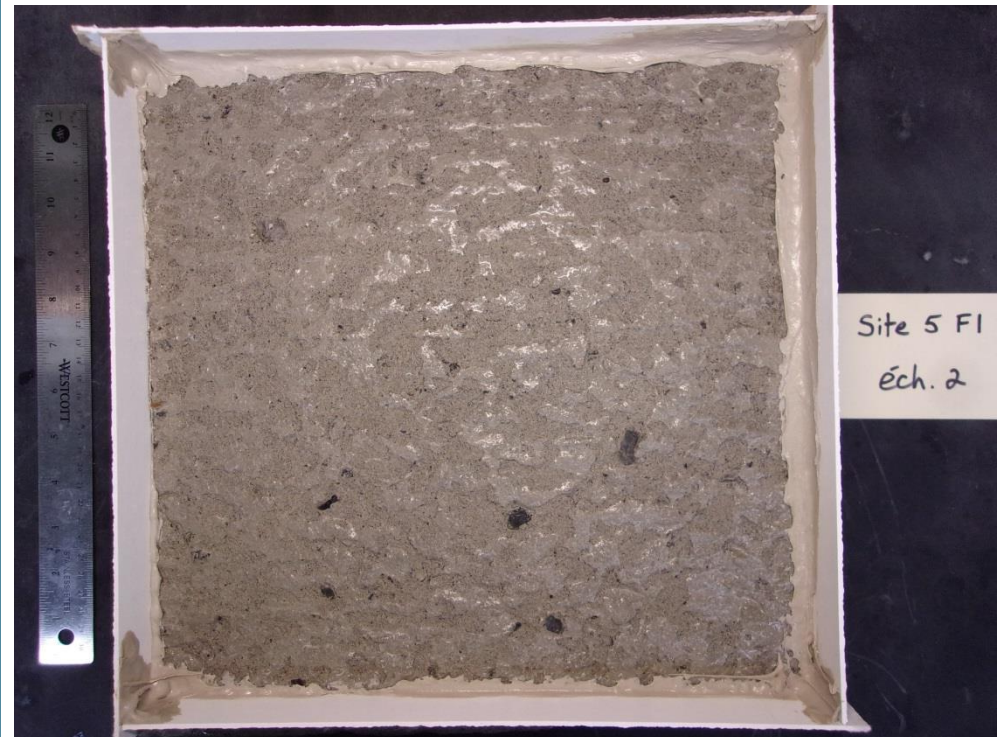
Number of cycles : After 35 freeze-thaw cycles



Mass loss after 35 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.32

Comments :



Mass loss after 35 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.32

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-13

Sample : Source # 5 – Exposure class F-1

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.33

Comments : Index 4 - Combination of fragmented coarse aggregate mainly with scaling of surface mortar



Mass loss after 56 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.34

Comments : Index 4 - Combination of fragmented coarse aggregate mainly with scaling of surface mortar

Performed by : Alexandre Lacroix, tech.

Date : 2016-11-03

Source #14
Exposure class F-1

Sample : Source # 14 – Exposure class F-1

Number of cycles :



Comments :

Performed by : Alexandre Lacroix, tech.
Date : 2016-09-08

Sample : Source # 14 – Exposure class F-1

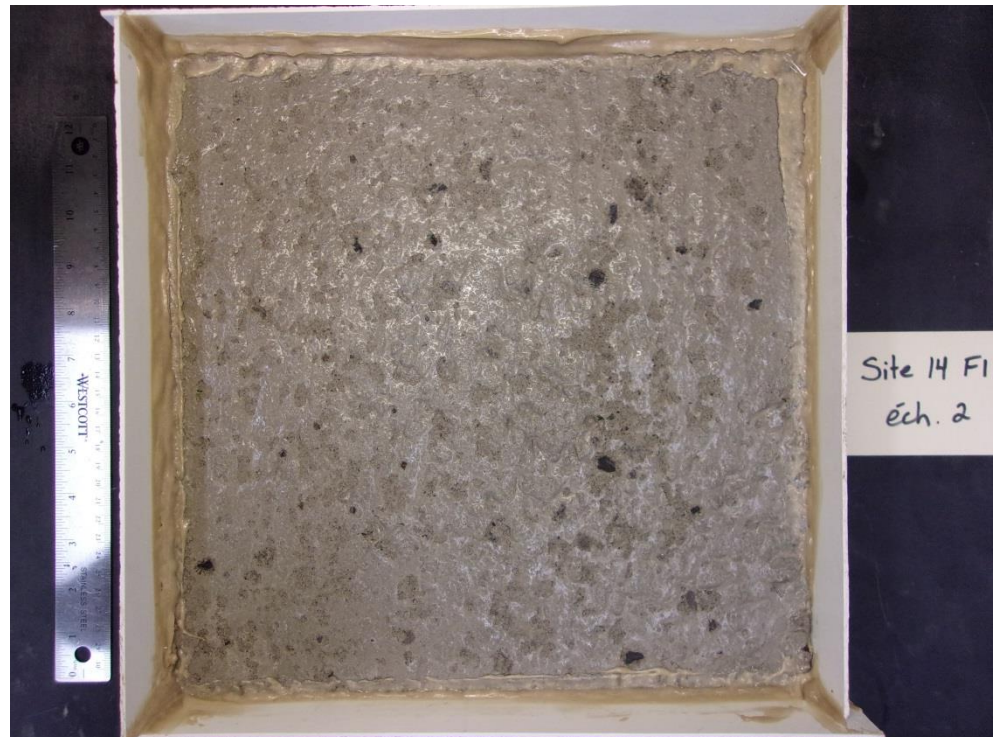
Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.10

Cumulative mass loss (kg/m²) 0.10

Comments :



Mass loss after 7 cycles (kg/m²) 0.11

Cumulative mass loss (kg/m²) 0.11

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-15

Sample : Source # 14 – Exposure class F-1

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.15

Comments :



Mass loss after 21 cycles (kg/m²) 0.09

Cumulative mass loss (kg/m²) 0.20

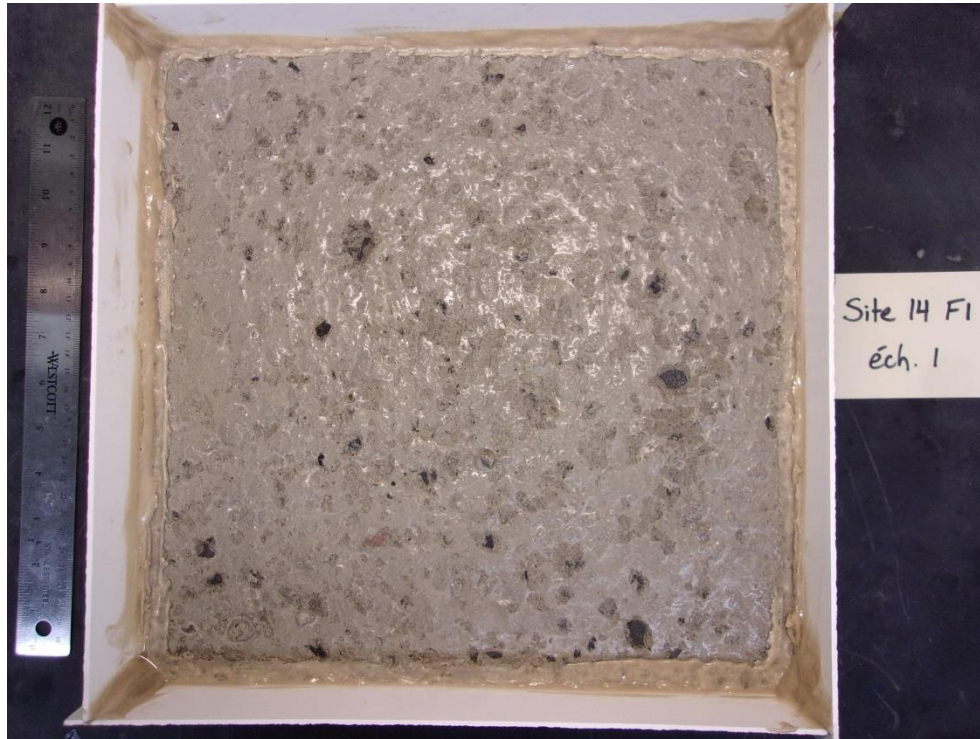
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-29

Sample : Source # 14 – Exposure class F-1

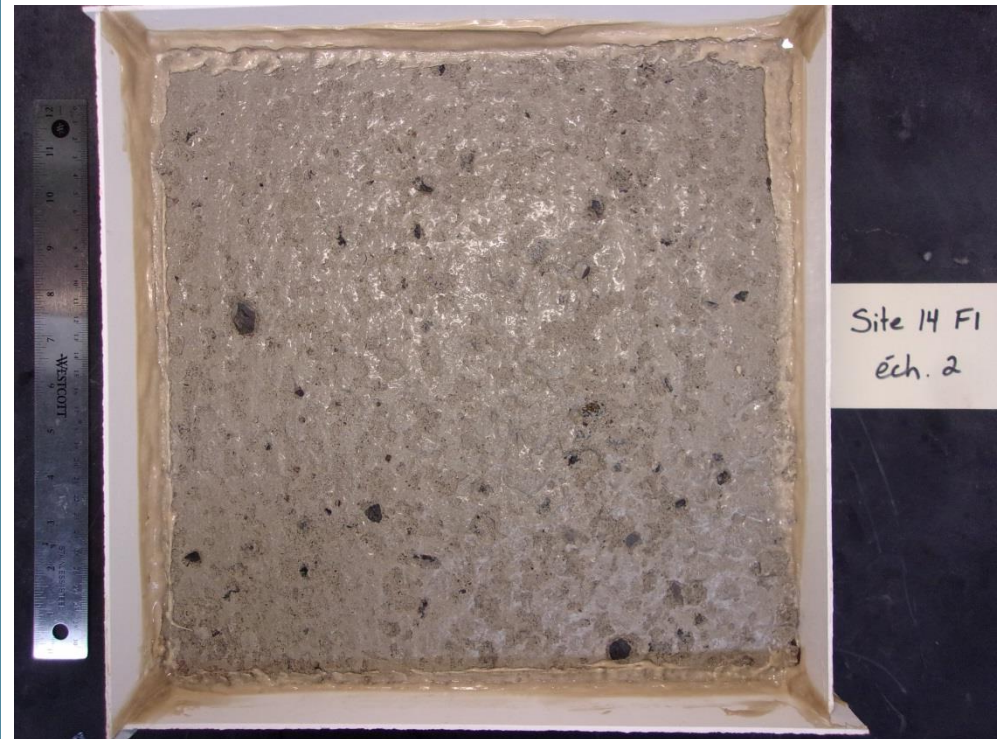
Number of cycles : After 35 freeze-thaw cycles



Mass loss after 35 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.17

Comments :



Mass loss after 35 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.22

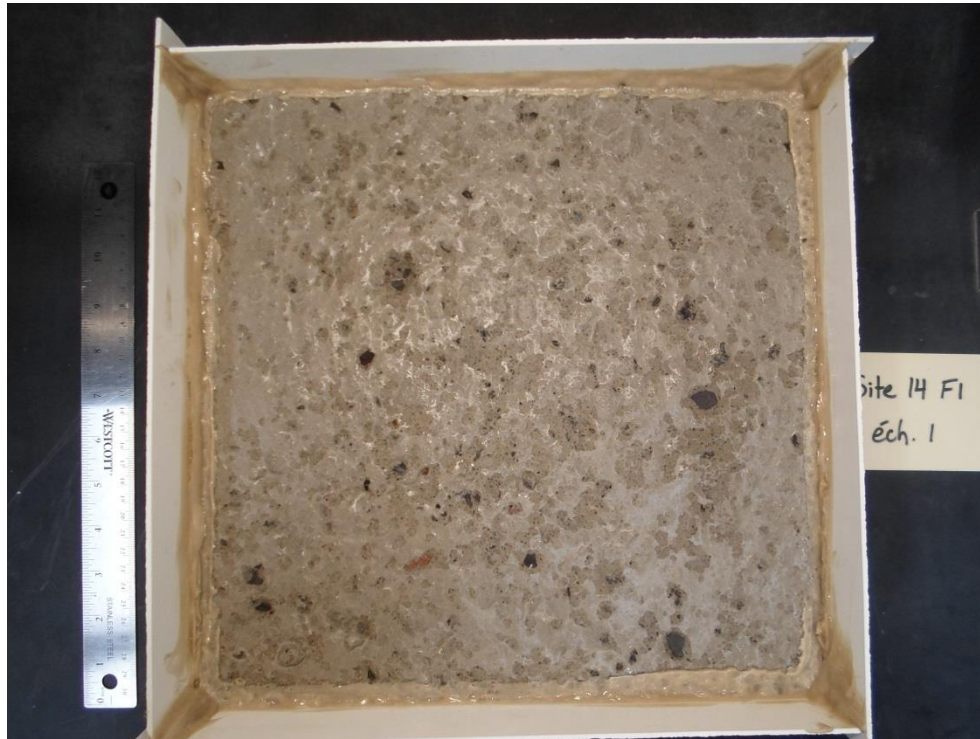
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-13

Sample : Source # 14 – Exposure class F-1

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.20

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate



Mass loss after 56 cycles (kg/m²) 0.01

Cumulative mass loss (kg/m²) 0.23

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate

Performed by : Alexandre Lacroix, tech.

Date : 2016-11-03

Source #19
Exposure class F-1

Sample : Source # 19 – Exposure class F-1

Number of cycles :



Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-08

Sample : Source # 19 – Exposure class F-1

Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.24

Cumulative mass loss (kg/m²) 0.24

Comments :



Mass loss after 7 cycles (kg/m²) 0.18

Cumulative mass loss (kg/m²) 0.18

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-15

Sample : Source # 19 – Exposure class F-1

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.27

Comments :



Mass loss after 21 cycles (kg/m²) 0.03

Cumulative mass loss (kg/m²) 0.21

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-29

Sample :	Source # 19 – Exposure class F-1			
Number of cycles :	After 35 freeze-thaw cycles			
				
Mass loss after 35 cycles (kg/m ²)	0.02		Mass loss after 35 cycles (kg/m ²)	0.02
Cumulative mass loss (kg/m ²)	0.29		Cumulative mass loss (kg/m ²)	0.23
Comments :			Comments :	

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-13

Sample : Source # 19 – Exposure class F-1

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m ²)	0.02
Cumulative mass loss (kg/m ²)	0.31
Comments : Index 1-B - Significant scaling of surface mortar with no popouts observed	



Mass loss after 56 cycles (kg/m ²)	0.01
Cumulative mass loss (kg/m ²)	0.24
Comments : Index 1-B - Significant scaling of surface mortar with no popouts observed	

Performed by : Alexandre Lacroix, tech.

Date : 2016-11-03

Source #23
Exposure class F-1

Sample : Source # 23 – Exposure class F-1

Number of cycles :



Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-15

Sample : Source # 23 – Exposure class F-1

Number of cycles : After 7 freeze-thaw cycles



Mass loss after 7 cycles (kg/m²) 0.11

Cumulative mass loss (kg/m²) 0.11

Comments :



Mass loss after 7 cycles (kg/m²) 0.12

Cumulative mass loss (kg/m²) 0.12

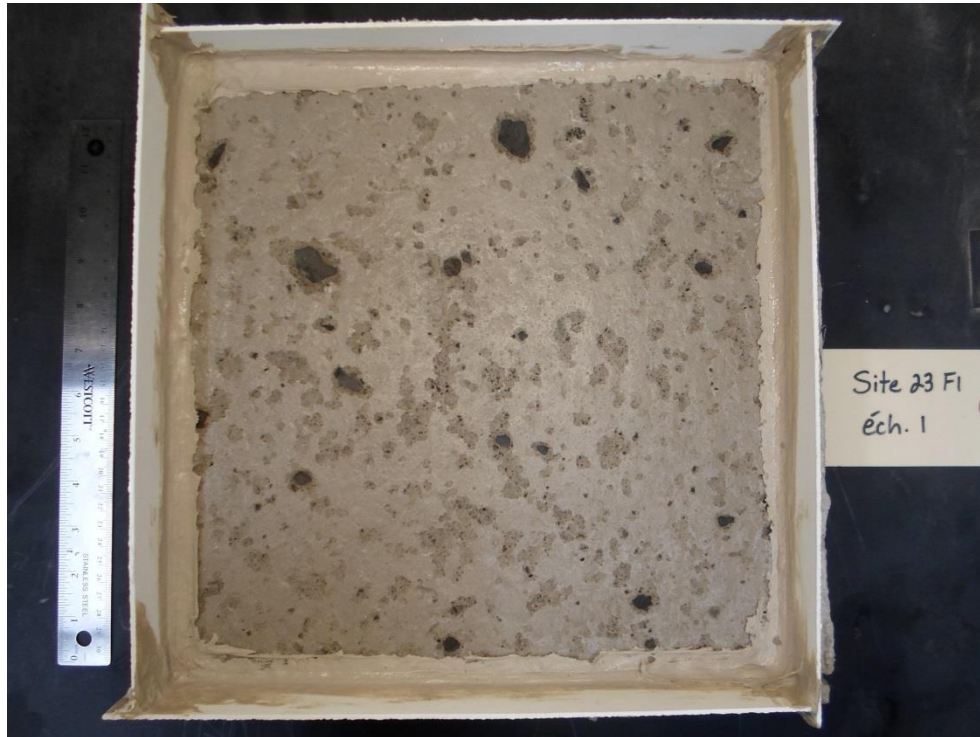
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-09-22

Sample : Source # 23 – Exposure class F-1

Number of cycles : After 21 freeze-thaw cycles



Mass loss after 21 cycles (kg/m²) 0.07

Cumulative mass loss (kg/m²) 0.18

Comments :



Mass loss after 21 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.17

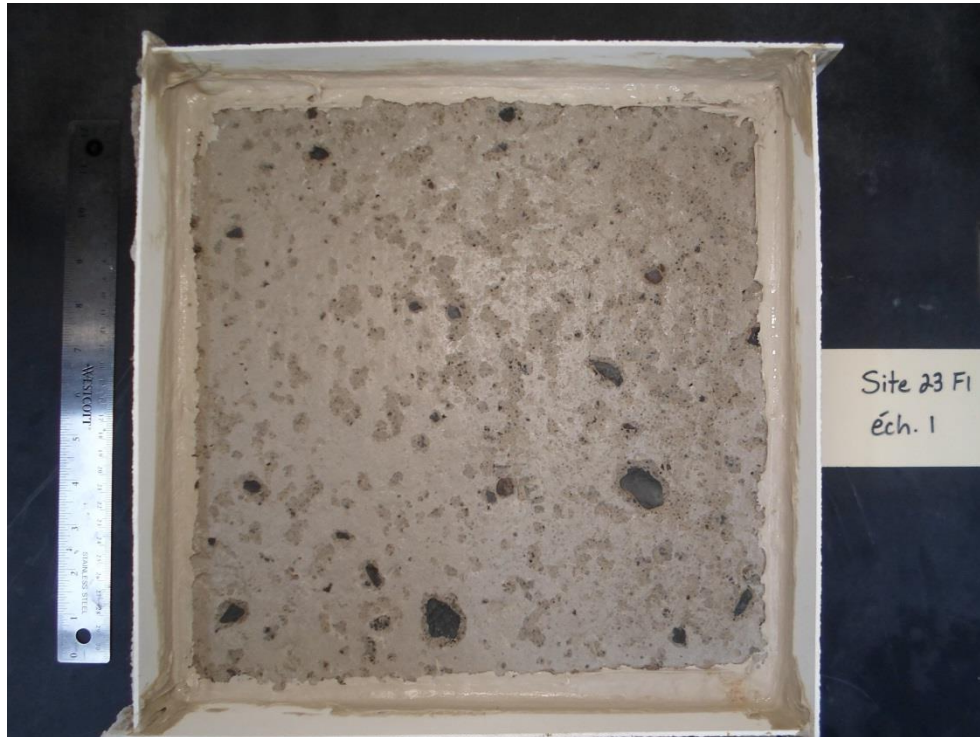
Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-06

Sample : Source # 23 – Exposure class F-1

Number of cycles : After 35 freeze-thaw cycles



Mass loss after 35 cycles (kg/m²) 0.07

Cumulative mass loss (kg/m²) 0.25

Comments :



Mass loss after 35 cycles (kg/m²) 0.04

Cumulative mass loss (kg/m²) 0.21

Comments :

Performed by : Alexandre Lacroix, tech.

Date : 2016-10-20

Sample : Source # 23 – Exposure class F-1

Number of cycles : After 56 freeze-thaw cycles



Mass loss after 56 cycles (kg/m²) 0.05

Cumulative mass loss (kg/m²) 0.30

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate



Mass loss after 56 cycles (kg/m²) 0.02

Cumulative mass loss (kg/m²) 0.23

Comments : Index 3 - Combination of surface mortar scaling mainly with fragmented coarse aggregate

Performed by : Alexandre Lacroix, tech.

Date : 2016-11-10

