



Industrial Research Services

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ABN 41 687 119 230

Registered Testing Authority - CSIRO

30 September 2009

Our Ref. EN13/1830 03/0212

TEST REPORT No. 5029 [Rev A]

Requested by: MITEQ
on (date): 18 August 2009
Manufacturer: MITEQ
Product Desc: Stone Impregnator and Consolidator BR128
Miteq Sealer 104
Sandstone and Basalt samples

Sampling details:
Where: Delivered
Date: 18 August 2009
By Whom: Client
How (methods): N/A

The results reported relate only to the sample(s) tested and the information received. No responsibility is taken for the accuracy of the sampling unless it is done under our supervision. CSIRO cannot accept responsibility for deviations in the manufactured quality and performance of the product. While CSIRO takes care in preparing the reports it provides to clients, it does not warrant that the information in this particular report will be free of errors or omissions or that it will be suitable for the client's purposes. CSIRO will not be responsible for the results or any actions taken by the client or any other person on the basis of the information contained in the report or any opinions expressed in it.

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This test report consists of 4 pages

SUMMARY OF TESTS PERFORMED:

AS/NZS 4456.10:2003	Resistance to Salt Attack – Method A Sodium Sulphate	
	Mean % mass loss – sandstone	0.001 %
	Mean % mass loss – basalt	0.001 %
AS/NZS 4456.10:2003	Resistance to Salt Attack – Method A Sodium Chloride	
	Mean % mass loss – sandstone	0.05 %
	Mean % mass loss – basalt	0.01 %

The system product, Stone Impregnator & Consolidator BR128 plus Miteq Sealer 104 provided a protection barrier against the two salt solutions.

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MASONARY UNITS AND SEGMENTED PAVERS
Method 10: Determining resistance to Salt Attack

TEST CARRIED OUT IN ACCORDANCE WITH
 AS/NZS 4456.10: 2003 (Method A – Stone)

Test Commencement Date: 01 September 2009
 Test Completion Date: 27 September 2009

RESULTS: Location: CTS Laboratory

Test Solution: Sodium Sulphate
Specimen size: 50 x 30 x 12mm (Nominal)
Cycles Completed: 15

Group values:

Exfoliated surface:	Specimen Group	Mean % Mass Loss	Mode of Decay:	
			Degree	Type
Samples 1 to 5		0.001	Slight -	RO

Smooth surface:	Specimen Group	% Mass Loss	Mode of Decay:	
			Degree	Type
Samples 1 to 5		0.001	Slight -	RO

Basalt:	Specimen Group	% Mass Loss	Mode of Decay:	
			Degree	Type
Samples 1 to 5		0.001	Slight -	RO

Legend: PI = Pitting, CA = Cavitation, CR = Crumbling, SP = Splitting, RO = Rounding, CE = Cracking
 EX = Exfoliation, CD = Complete disintegration

Comment:

The surface roughness was abraded from the upper face of the exfoliated samples.
 There was a light abrasion of the keen edge of all sandstone samples.
 The basalt was almost unaffected by the salt solution.

A sample is considered to be salt attack resistant when no test specimen has a total mass loss of particles of no more than 1%.

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MASONARY UNITS AND SEGMENTED PAVERS
Method 10: Determining resistance to Salt Attack

TEST CARRIED OUT IN ACCORDANCE WITH
 AS/NZS 4456.10: 2003 (Method A – Stone)

Test Commencement Date: 01 September 2009
 Test Completion Date: 27 September 2009

RESULTS: Location: CTS Laboratory

Test Solution: Sodium Chloride
Specimen size: 50 x 30 x 12mm (Nominal)
Cycles Completed: 15

Group values:

Exfoliated surface:	Specimen Group	Mean % Mass Loss	Mode of Decay:	
			Degree	Type
Samples 1 to 5		0.06	Slight -	RO

Smooth surface:	Specimen Group	% Mass Loss	Mode of Decay:	
			Degree	Type
Samples 1 to 5		0.05	Slight -	RO

Basalt:	Specimen Group	% Mass Loss	Mode of Decay:	
			Degree	Type
Samples 1 to 5		0.01	Slight -	RO

Legend: PI = Pitting, CA = Cavitation, CR = Crumbling, SP = Splitting, RO = Rounding, CE = Cracking
 EX = Exfoliation, CD = Complete disintegration

Comment:

The surface roughness was abraded from the upper face of the exfoliated samples.
 There was a light abrasion of the keen edge of all sandstone samples.
 The basalt was almost unaffected by the salt solution.

A sample is considered to be salt attack resistant when no test specimen has a total mass loss of particles of no more than 1%.



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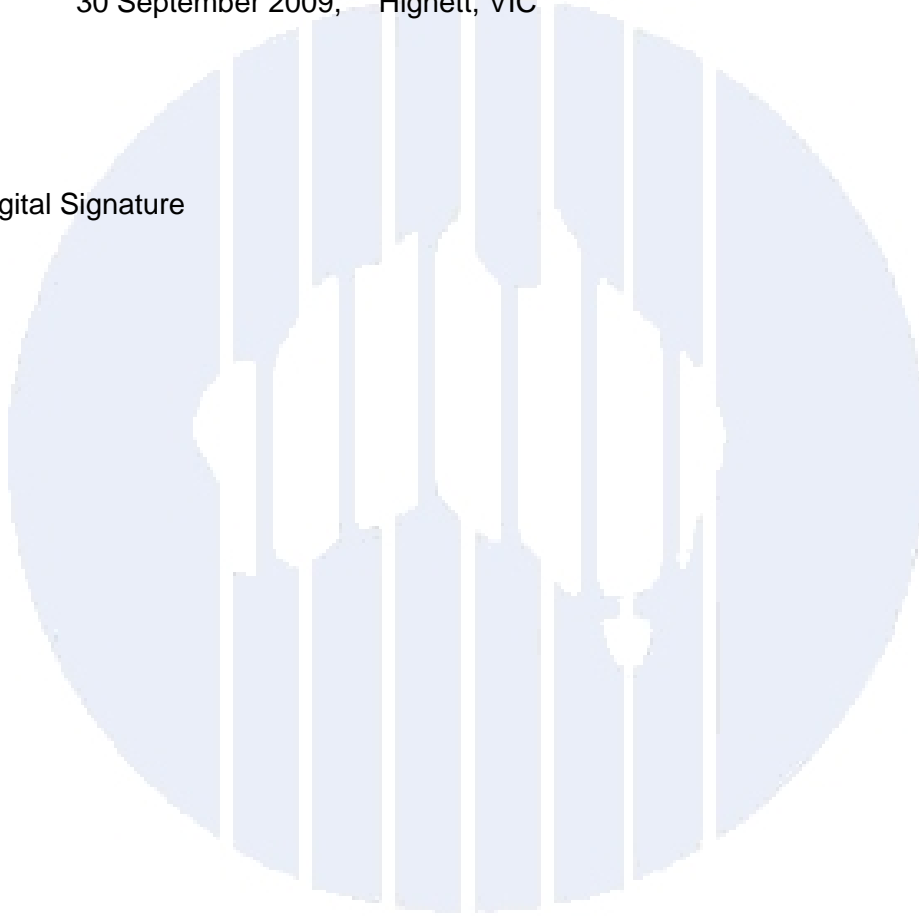
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Date and Place 30 September 2009, Highett, VIC

Name, Title and Digital Signature



A handwritten signature in black ink, appearing to read 'David Weeks', is located to the left of the large watermark.

(DAVID WEEKS)
(Technical Officer)

CSIRO

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ATTACHMENT



Exfoliated sandstone sample comparison
Pre and post sodium sulphate testing



Exfoliated sandstone sample comparison
Pre and post sodium chloride

ATTACHMENT



Honed sandstone sample comparison
Pre and post sodium sulphate and chloride

There was no loss of definition from the surface of these samples from either salt solution.



Basalt sample comparison.
Basalt samples were only mildly affected by sodium chloride.