



Report of Physical Property Tests

Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
15 Branch Pike
Smithfield, RI 02917

Trade Name of Material: **Deer Isle™**
 Quarry: **Crotch Island**
Stonington, ME 04681

Test Procedure: **ASTM C 99 Standard Test Method for Modulus of Rupture**
of Dimension Stone

Rift Orientation: **Perpendicular**

Preconditioning: **As Noted**

DRY CONDITION						
Specimen Number	Span (in)	Width (in)	Thickness (in)	Load @ Failure (lbs)	Modulus of Rupture (lbs/in ²)	Modulus of Rupture (MPa)
1	7.00	4.00	2.39	4,020	1,850	12.7
2	7.00	4.09	2.31	4,187	2,010	13.9
3	7.00	4.04	2.33	3,934	1,880	13.0
4	7.00	4.03	2.31	3,824	1,870	12.9
5	7.00	3.99	2.36	4,244	2,010	13.8

Average Modulus of Rupture: **1,920** **13.3**

Standard Deviation: **79** **0.6**

Coefficient of Variation: **4%** **4%**

WET CONDITION						
Specimen Number	Span (in)	Width (in)	Thickness (in)	Load @ Failure (lbs)	Modulus of Rupture (lbs/in ²)	Modulus of Rupture (MPa)
1	7.00	3.99	2.40	3,916	1,790	12.3
2	7.00	4.05	2.30	3,521	1,730	11.9
3	7.00	4.00	2.37	4,315	2,020	13.9
4	7.00	4.03	2.34	3,542	1,690	11.6
5	7.00	4.00	2.36	3,778	1,780	12.3

Average Modulus of Rupture: **1,800** **12.4**

Standard Deviation: **128** **0.9**

Coefficient of Variation: **7%** **7%**

Date of Tests: **Tuesday, 21 March, 2017**

Tests performed by: **M Loflin**

Reviewed by: **Muehlbauer**

These tests were performed on a Applied Testing Systems Universal Testing Machine Model 910. Loads were measured on Interface Model 1020AF-12.5K-B Load Cell, Serial No. 561415A, Last Date of Calibration: August 19, 2016, traceable to the National Institute of Standards Technology (NIST).



Report of Physical Property Tests

Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
15 Branch Pike
Smithfield, RI 02917

Trade Name of Material: **Deer Isle™**
 Quarry: **Crotch Island**
Stonington, ME 04681

Test Procedure: **ASTM C 97**
Standard Test Method for Absorption & Bulk Specific Gravity of Dimension Stone

Specimen Number	Dry Weight (grams)	Saturated Weight (grams)	Suspended Weight (grams)	Absorption (%)	Bulk Specific Gravity	Density (kg/m ³)	Density (lbs/ft ³)
DEER-SW-1	1,180.65	1,183.33	731.76	0.23%	2.615	2,615	163.2
DEER-SW-2	1,159.12	1,162.14	715.67	0.26%	2.596	2,596	162.1
DEER-SW-3	1,165.75	1,168.90	722.01	0.27%	2.609	2,609	162.9
Average:				0.25%	2.607	2,607	162.7
Standard Deviation:				0.02%	0.010	10	0.6
Coefficient of Variation:				8.0%	0.4%	0.4%	0.4%

Date of Tests: **3/13/2017**
 Tests performed by: **Loflin**
 Reviewed by: **Muehlbauer**

These tests were performed on an Ohaus Laboratory Balance Model AX2202/E, Serial No. B614316489. Last Date of Calibration: May, 2016, traceable to the National Institute of Standards Technology (NIST).

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Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
15 Branch Pike
Smithfield, RI 02917

Trade Name of Material: **Deer Isle™**
Quarry: **Crotch Island**
Stonington, ME 04681

Test Procedure: **ASTM C 880 Standard Test Method for Flexural Strength of Dimension Stone**
Rift Orientation: **Perpendicular**
Preconditioning: **Dry**

TEST RESULTS						
Specimen Number	Span (in)	Breadth (in)	Depth (in)	Load @ Failure (lbs)	Flexural Strength (lbs/in ²)	Flexural Strength (MPa)
1	12.00	3.95	1.27	1,280	1,810	12.5
2	12.00	4.00	1.27	1,440	2,010	13.9
3	12.00	3.95	1.23	1,290	1,940	13.4
4	12.00	4.01	1.26	1,300	1,840	12.7
5	12.00	3.99	1.28	1,140	1,570	10.8
Average Flexural Strength:					1,830	12.6
Standard Deviation:					168	1.2
Coefficient of Variation:					9%	9%

Date of Tests: **Monday, 13 March, 2017**
Tests performed by: **Loflin**
Reviewed by: **Muehlbauer** 

These tests were performed on a Applied Testing Systems Universal Testing Machine Model 910. Loads were measured on Interface Model 1020AF-12.5K-B Load Cell, Serial No. 561415A, Last Date of Calibration: August 19, 2016, traceable to the National Institute of Standards Technology (NIST).



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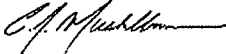
Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
15 Branch Pike
Smithfield, RI 02917

Trade Name of Material: **Deer Isle™**
Quarry: **Crotch Island**
Stonington, ME 04681

Test Procedure: **ASTM C 880 Standard Test Method for Flexural Strength of Dimension Stone**
Rift Orientation: **Parallel**
Preconditioning: **Wet**

TEST RESULTS						
Specimen Number	Span (in)	Breadth (in)	Depth (in)	Load @ Failure (lbs)	Flexural Strength (lbs/in ²)	Flexural Strength (MPa)
1	12.00	4.02	1.17	900	1,470	10.2
2	12.00	4.00	1.16	950	1,590	11.0
3	12.00	4.00	1.09	850	1,610	11.1
4	12.00	4.01	1.25	1,110	1,590	11.0
5	12.00	4.03	1.26	1,030	1,450	10.0

Average Flexural Strength: **1,540** **10.6**
Standard Deviation: **76** **0.5**
Coefficient of Variation: **5%** **5%**

Date of Tests: **Monday, 13 March, 2017**
Tests performed by: **Loflin**
Reviewed by: **Muehlbauer** 

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Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
15 Branch Pike
Smithfield, RI 02917

Trade Name of Material: **Deer Isle™**
 Quarry: **Crotch Island**
Stonington, ME 04681

Test Procedure: **ASTM C 880 Standard Test Method for Flexural Strength of Dimension Stone**
 Rift Orientation: **Perpendicular**
 Preconditioning: **Wet**

TEST RESULTS						
Specimen Number	Span (in)	Breadth (in)	Depth (in)	Load @ Failure (lbs)	Flexural Strength (lbs/in ²)	Flexural Strength (MPa)
1	12.00	4.04	1.28	1,300	1,770	12.2
2	12.00	4.05	1.27	1,350	1,860	12.8
3	12.00	3.92	1.25	1,290	1,900	13.1
4	12.00	4.00	1.25	1,330	1,920	13.2
5	12.00	3.96	1.27	1,210	1,710	11.8

Average Flexural Strength: **1,830** **12.6**
 Standard Deviation: **89** **0.6**
 Coefficient of Variation: **5%** **5%**

Date of Tests: **Monday, 13 March, 2017**
 Tests performed by: **Loflin**
 Reviewed by: **Muehlbauer** *C. J. Muehlbauer*

These tests were performed on a Applied Testing Systems Universal Testing Machine Model 910. Loads were measured on Interface Model 1020AF-12.5K-B Load Cell, Serial No. 561415A, Last Date of Calibration: August 19, 2016, traceable to the National Institute of Standards Technology (NIST).



Report of Physical Property Tests

Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
15 Branch Pike
Smithfield, RI 02917

Trade Name of Material: **Deer Isle™**
 Quarry: **Crotch Island**
Stonington, ME 04681

Test Procedure: **ASTM C 170 Standard Test Method for Compressive Strength of Dimension Stone**
 Rift Orientation: **Parallel**
 Preconditioning: **Wet**

TEST RESULTS						
Specimen Number	Length (in)	Width (in)	Area (in ²)	Load @ Failure (lbs)	Compressive Strength (lbs/in ²)	Compressive Strength (MPa)
1	3.07	3.00	9.21	209,900	22,790	157.1
2	3.07	3.00	9.21	248,400	26,970	186.0
3	3.00	3.00	9.00	219,300	24,370	168.0
4	3.12	2.98	9.30	177,400	19,080	131.5
5	3.01	3.07	9.24	211,200	22,860	157.6

Average Compressive Strength: **23,210** **160.0**
 Standard Deviation: **2,865** **19.8**
 Coefficient of Variation: **12%** **12%**

Date of Tests: **Monday, 13 March, 2017**
 Tests performed by: **Guilfoyle**
 Reviewed by: **Muehlbauer** *C. J. Muehlbauer*

These tests were performed on a Test Mark Model CM-4000-i720 Hydraulic Testing Machine, Serial No. 160618. Last Date of Calibration: July, 2016, traceable to the National Institute of Standards Technology (NIST).



Report of Physical Property Tests


Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
15 Branch Pike
Smithfield, RI 02917

Trade Name of Material: **Jet Mist™**
 Quarry: **25515 Rapidan Road**
Rapidan, VA 22733

Test Procedure: **ASTM C 170 Standard Test Method for Compressive Strength of Dimension Stone**
 Rift Orientation: **Parallel**
 Preconditioning: **Wet**

TEST RESULTS						
Specimen Number	Length (in)	Width (in)	Area (in ²)	Load @ Failure (lbs)	Compressive Strength (lbs/in ²)	Compressive Strength (MPa)
1	3.02	2.97	8.97	332,600	37,080	255.7
2	3.08	3.03	9.33	248,400	26,620	183.6
3	3.07	3.01	9.24	295,700	32,000	220.6
4	3.08	3.04	9.36	223,400	23,870	164.6
5	3.08	3.03	9.33	270,100	28,950	199.6

Average Compressive Strength: **29,700** **204.8**
 Standard Deviation: **5,094** **35.1**
 Coefficient of Variation: **17%** **17%**

Date of Tests: **Monday, 13 March, 2017**
 Tests performed by: **Guilfoyle**
 Reviewed by: **Muehlbauer** 

These tests were performed on a Test Mark Model CM-4000-i720 Hydraulic Testing Machine, Serial No. 160618. Last Date of Calibration: July, 2016, traceable to the National Institute of Standards Technology (NIST).



Report of Physical Property Tests

Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
15 Branch Pike
Smithfield, RI 02917

Trade Name of Material: **Deer Isle™**
 Quarry: **Crotch Island**
Stonington, ME 04681

Test Procedure: **ASTM C 170 Standard Test Method for Compressive Strength of Dimension Stone**
 Rift Orientation: **Perpendicular**
 Preconditioning: **Dry**

TEST RESULTS						
Specimen Number	Length (in)	Width (in)	Area (in ²)	Load @ Failure (lbs)	Compressive Strength (lbs/in ²)	Compressive Strength (MPa)
1	2.97	3.07	9.12	178,200	19,540	134.7
2	3.07	3.00	9.21	203,800	22,130	152.6
3	3.08	3.00	9.24	193,000	20,890	144.0
4	2.98	3.08	9.18	168,100	18,310	126.3
5	3.06	3.00	9.18	194,300	21,170	145.9

Average Compressive Strength: **20,410** **140.7**
 Standard Deviation: **1,494** **10.3**
 Coefficient of Variation: **7%** **7%**

Date of Tests: **Monday, 13 March, 2017**
 Tests performed by: **Guilfoyle**
 Reviewed by: **Muehlbauer** *C. J. Muehlbauer*

These tests were performed on a Test Mark Model CM-4000-i720 Hydraulic Testing Machine, Serial No. 160618. Last Date of Calibration: July, 2016, traceable to the National Institute of Standards Technology (NIST).



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Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
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Smithfield, RI 02917

Trade Name of Material: **Deer Isle™**
 Quarry: **Crotch Island**
Stonington, ME 04681

Test Procedure: **ASTM C 170 Standard Test Method for Compressive Strength of Dimension Stone**
 Rift Orientation: **Parallel**
 Preconditioning: **Dry**

TEST RESULTS						
Specimen Number	Length (in)	Width (in)	Area (in ²)	Load @ Failure (lbs)	Compressive Strength (lbs/in ²)	Compressive Strength (MPa)
1	2.99	3.08	9.21	196,700	21,360	147.3
2	3.01	3.00	9.03	278,900	30,890	213.0
3	3.00	3.00	9.00	271,300	30,140	207.8
4	3.01	2.99	9.00	220,900	24,540	169.2
5	3.01	2.97	8.94	239,700	26,810	184.9

Average Compressive Strength: **26,750** **184.4**
 Standard Deviation: **3,955** **27.3**
 Coefficient of Variation: **15%** **15%**

Date of Tests: **Monday, 13 March, 2017**
 Tests performed by: **Guilfoyle**
 Reviewed by: **Muehlbauer** *C.P. Muehlbauer*

These tests were performed on a Test Mark Model CM-4000-i720 Hydraulic Testing Machine, Serial No. 160618. Last Date of Calibration: July, 2016, traceable to the National Institute of Standards Technology (NIST).




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Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
15 Branch Pike
Smithfield, RI 02917

Material: **DEER ISLE®**
 Origin: **Crotch Island, Stonington, ME USA**
 Test Procedure: **ASTM C 99 Standard Test Method for Modulus of Rupture of Dimension Stone**
 Rift Orientation: **Parallel**
 Preconditioning: **Dry**

Specimen Number	Span (in)	Width (in)	Thickness (in)	Load @ Failure (lbs)	Modulus of Rupture (lbs/in ²)	Modulus of Rupture (MPa)
246	7.00	4.06	2.26	3,133	1,590	10.9
247	7.00	4.03	2.28	3,094	1,550	10.7
248	7.00	3.96	2.28	3,077	1,570	10.8
249	7.00	3.98	2.24	3,046	1,600	11.0
250	7.00	3.95	2.41	3,432	1,570	10.8

Average Modulus of Rupture: **1,580** **10.8**
 Standard Deviation: **19** **0.1**
 Coefficient of Variation: **1%** **1%**

Date of Tests: **Monday, 07 August, 2017**
 Tests performed by: **S Guilfoyle**
 Report and Data Reviewed by: **C Muehlbauer** 

These tests were performed on a Applied Testing Systems Universal Testing Machine Model 910. Loads were measured on Interface Model 1020AF-12.5K-B Load Cell, Serial No. 561415A, Last Date of Calibration: August 19, 2016, traceable to the National Institute of Standards Technology (NIST).



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Stonington, ME 04681

Test Procedure: **ASTM C 99 Standard Test Method for Modulus of Rupture of Dimension Stone**
 Rift Orientation: **Perpendicular**
 Preconditioning: **As Noted**

DRY CONDITION						
Specimen Number	Span (in)	Width (in)	Thickness (in)	Load @ Failure (lbs)	Modulus of Rupture (lbs/in ²)	Modulus of Rupture (MPa)
1	7.00	4.00	2.39	4,020	1,850	12.7
2	7.00	4.09	2.31	4,187	2,010	13.9
3	7.00	4.04	2.33	3,934	1,880	13.0
4	7.00	4.03	2.31	3,824	1,870	12.9
5	7.00	3.99	2.36	4,244	2,010	13.8

Average Modulus of Rupture: **1,920** **13.3**
 Standard Deviation: **79** **0.6**
 Coefficient of Variation: **4%** **4%**

WET CONDITION						
Specimen Number	Span (in)	Width (in)	Thickness (in)	Load @ Failure (lbs)	Modulus of Rupture (lbs/in ²)	Modulus of Rupture (MPa)
1	7.00	3.99	2.40	3,916	1,790	12.3
2	7.00	4.05	2.30	3,521	1,730	11.9
3	7.00	4.00	2.37	4,315	2,020	13.9
4	7.00	4.03	2.34	3,542	1,690	11.6
5	7.00	4.00	2.36	3,778	1,780	12.3

Average Modulus of Rupture: **1,800** **12.4**
 Standard Deviation: **128** **0.9**
 Coefficient of Variation: **7%** **7%**

Date of Tests: **Tuesday, 21 March, 2017**
 Tests performed by: **M Loflin**
 Reviewed by: **Muehlbauer**

These tests were performed on a Applied Testing Systems Universal Testing Machine Model 910. Loads were measured on Interface Model 1020AF-12.5K-B Load Cell, Serial No. 561415A, Last Date of Calibration: August 19, 2016, traceable to the National Institute of Standards Technology (NIST).



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Test Specimens Provided by: **New England Stone Industries DBA Granites of America**
 15 Branch Pike
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Trade Name of Material: **Deer Isle™**
 Quarry: **Crotch Island**
 Stonington, ME 04681

Test Procedure: **ASTM C 880 Standard Test Method for Flexural Strength of Dimension Stone**
 Rift Orientation: **Parallel**
 Preconditioning: **Dry**

TEST RESULTS						
Specimen Number	Span (in)	Breadth (in)	Depth (in)	Load @ Failure (lbs)	Flexural Strength (lbs/in ²)	Flexural Strength (MPa)
1	12.00	3.99	1.20	1,150	1,800	12.4
2	12.00	4.01	1.25	1,190	1,710	11.8
3	12.00	4.01	1.24	1,330	1,940	13.4
4	12.00	4.03	1.17	1,070	1,750	12.0
5	12.00	4.03	1.21	1,170	1,780	12.3
Average Flexural Strength:					1,800	12.4
Standard Deviation:					87	0.6
Coefficient of Variation:					5%	5%

Date of Tests: **Monday, 13 March, 2017**
 Tests performed by: **Loflin**
 Reviewed by: **Muehlbauer** *C.J. Muehlbauer*

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