

AMBER CONSULTING COMPANY

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Brad Jones  
Buckingham Slate Company  
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August 26, 2016

Dear Mr. Jones,

A summary of test results to date on Buckingham Slate per ASTM C629 Slate Dimension Stone are as follows:

1. Water Absorption, C121-09, 0.094 % (ASTM max. for Class I Exterior slate is 0.25%).
2. Modulus of Rupture, C120-12:  
    Across Grain is: 11306 psi (ASTM min. for Class I Exterior slate is 9000 psi).  
    Along Grain is: 10594 psi (ASTM min. for Class I Exterior Slate is 7200 psi)
3. Acid Resistance, C217-15, 0.0006 in. (ASTM max. for Class I Exterior slate is 0.015 in.).
4. Abrasion Resistance, ASTM C1353-15, 19 Iw (ASTM min. for Class I Exterior slate is 8.0 Iw).
5. Density/Specific Gravity is 174.5 lbs/cu.ft and 2.815. Previous values were 174.4 lbs/cu.ft and 2.813.
6. Coefficient of Friction, ASTM C1028-07:  
    Dry: As rec'd 0.81, after cleaning 0.83  
    Wet: As rec'd 0.71, after cleaning 0.72
7. Compressive Strength, ASTM C170-15, 26970 psi. Previous value was 25800 psi.

Tables 1 thru 7 list the individual tests. From the specimens tested, this variety of slate qualifies as a Class I Exterior/Interior Dimension Slate per the requirements of ASTM C629-10 Table 1 (Specification for Slate Dimension Stone).

Modulus of Rupture and Compression Strength tests were conducted on a Tinius Olsen Testing Machine calibrated October 2014 and a Satec Universal Testing Machine calibrated August 24, 2016 respectively. The Weather Resistance tests were conducted using the hand scraping method. Thickness measurements were taken at three (3) different locations along the scrape track. The average depth of softening was recorded.

Very truly yours,

Thomas H. Olson, Test Engineer

