

**AMBER CONSULTING COMPANY**  
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**Cupa Pizarras, S.A.**  
Attn: Lucas Severance  
2600 Loisville Rd.  
Savannah, GA 31415

**May 26, 2018**

Dear Mr. Severance:

Cupa 14 Roofing Slate from the Cupa 14 quarry in La Nedia Spain was tested per ASTM specifications. A summary of the results is as follows:

- 1. Water Absorption, C121-15, 0.205% (ASTM max. for S1 slate is 0.25%).**
- 2. Flexure, C120-15, Breaking Load 634 lbs, Ave. thickness 0.267 in. (ASTM min. for S1 slate is 575 lbs)**
- 3. Weather Resistance, C217-15, 0.0002 in. (ASTM max. for S1 slate is 0.002 in.)**

Tables 1, 2 and 3 list the individual test results. From the specimens tested, this variety of roofing slate qualifies as a S1 grade slate (75+ projected life) per the requirements of ASTM C406-15 (Specification for Roofing Slate).

Modulus of Rupture tests were conducted on a Tinius Olsen Testing Machine calibrated January 2017. 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.

Please let us know if we can be of further assistance.

Very truly yours,

Thomas H. Olson  
Test Engineer

Enclosure: Page 2 - Results

**CUPA 14**

**ASTM Test Results**

Cupa 14 Roofing Slate  
For: Vermont Slate Company  
By: Amber Consulting Co.  
05/26/18

Quarry: Cupa 14  
La Medua-Ourense-Spain

**TABLE 1- Water Absorption-C121**

Specimen No.	Absorption (%)
14VC1A	0.235
14VC2A	0.188
14VC3A	0.224
14VC4A	0.206
14VC5A	0.197
14VC6A	0.181
<b>Average</b>	<b>0.205% (S1 max 0.250%)</b>

**TABLE 2- Flexural Strength- C120**

Specimen No.	Breaking Load (lbs.)	Thickness (in.)
14VC1R	620	0.251
14VC2R	962	0.277
14VC3R	735	0.313
14VC4R	569	0.264
14VC5R	573	0.269
14VC6R	456	0.231
14VC7R	630	0.258
14VC8R	618	0.251
14VC9R	728	0.298
14VC10R	450	0.256
<b>Average</b>	<b>634 lb.</b>	<b>0.267 in.(S1 min. 575 lbs)</b>

**TABLE 3- Weather Resistance-C217**

Specimen No.	Depth of Softening (in.)
14VC1W	0.0002
14VC2W	0.0001
14VC3W	0.0003
<b>Average</b>	<b>0.0002 in (S1 max 0.002 in.)</b>