

In 1957, ASTM Standard C406, a national standard for grading roofing slate, was developed by the American Society for Testing and Materials (ASTM).

**The determination of slate grade is based primarily on three physical properties**

- Flexural strength, also known as **breaking load**. ASTM test C120.
- Susceptibility to **water absorption**. ASTM test C121.
- Resistance to deterioration due to weather, also known as **depth of softening**. ASTM test C217.

To determine the grade of the slate in question, these properties must be tested in accordance with standardized ASTM methods by a qualified materials testing lab.

**ASTM C406 groups roofing slate into three grades based on test results**

- Grade S1 has an expected service life of more than 75 years.
- Grade S2 has an expected service life of 40 to 75 years.
- Grade S3 has an expected service life of 20 to 40 years.



**NEW ENGLAND**  
S L A T E

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# ASTM Standards

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## ASTM TEST RESULTS FOR NEW ENGLAND SLATE

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### ASTM S1 STANDARD

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		<b>ASTM Test C120</b> Breaking Load (pounds) 575 pounds minimum	<b>ASTM Test C121</b> Water Absorption (percentage) .25% maximum	<b>ASTM Test C217</b> Depth of Softening (inches) .002" maximum
North Country Black	S1	712	.160	.0010
Unfading Red	S1	1172	.190	.0007
Patriot Unfading Grey/Black	S1	771	.183	.0002
Rathscheck Black	S1	774	.176	.0002
Penrhyn Purple	S1	642	.166	.0003
Unfading Grey	S1	798	.205	.0003
Unfading Green or Unfading Grey/Green	S1	792	.161	.0005
Unfading Mottled Green & Purple	S1	946	.211	.0002
Semi-Weathering Grey/ Black or Vermont Black	S1	829	.159	.0011
Semi-Weathering Grey/Green	S1	582	.151	.0019
Variegated Purple	S1	725	.195	.0007
Strata Grey or Mottled Grey/Black	S1	691	.138	.0006
Vermont Grey	S1	819	.151	.0012
Royal Purple	S1	784	.097	.0005