

New ASTM C 1586 Clarifies Evaluation of field-tested vs. lab-tested mortar strength results.

ASTM C 1586 provides clarification and guidance regarding the proper use of specification ASTM C 270 and Test Method ASTM C 780 for evaluating masonry mortar produced and tested under laboratory conditions and mortar sampled and tested from the jobsite.

Specifiers, inspectors and testing agencies often confuse and inadvertently misuse portions of specification ASTM C 270 and Test Method ASTM C 780 when evaluating mortar compressive strength results obtained from field mixed mortar. Field mortar strength results are affected by water content, humidity, ambient temperatures and sample handling and routinely fall below laboratory designed and tested mixes.

Mortar property characteristics including compressive strength are specified according to ASTM C 270 with laboratory testing. ASTM C 270 (property specification) is not for use to specify minimum compressive strengths to be achieved by field mixed mortars. Field mixed mortar may be tested according to ASTM C 780 to evaluate mortar properties such as mortar water content or consistency. As defined in ASTM C 1586, compressive strength values determined through ASTM C 780 in the field are not expected nor required to achieve the compressive strengths of laboratory mixed and tested ASTM C 270 specification mortars.