



Designation: E2788/E2788M – 18

Standard Specification for Use of Expanded Shale, Clay and Slate (ESCS) as a Mineral Component in the Growing Media and the Drainage Layer for Vegetative (Green) Roof Systems¹

This standard is issued under the fixed designation E2788/E2788M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers the quality and grading of the following materials for use as a mineral component of growing media and drainage layer for extensive and intensive vegetative (green) roof systems. The requirements are intended to cover only materials having normal or average gradation characteristics. Procedures covered in this specification are not intended for evaluating the performance nutrients associated with vegetative (green) roof growing media. Where other materials are to be used, appropriate limits suitable to their use must be specified.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This standard offers an organized collection of information or a series of options and does not recommend a specific course of action. This document cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this guide may be applicable in all circumstances. This ASTM standard is not intended to represent or replace the standard of care by which the adequacy of a given professional service must be judged, nor should this document be applied without consideration of a project's many unique aspects. The word "Standard" in the title of this document means only that the document has been approved through the ASTM consensus process.*

¹ This specification is under the jurisdiction of ASTM Committee D08 on Roofing and Waterproofing and is the direct responsibility of Subcommittee D08.24 on Sustainability.

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1.5 This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

2. Referenced Documents

2.1 ASTM Standards:²

- C29/C29M Test Method for Bulk Density (“Unit Weight”) and Voids in Aggregate
- C88 Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
- C127 Test Method for Relative Density (Specific Gravity) and Absorption of Coarse Aggregate
- C136/C136M Test Method for Sieve Analysis of Fine and Coarse Aggregates
- C330/C330M Specification for Lightweight Aggregates for Structural Concrete
- C331/C331M Specification for Lightweight Aggregates for Concrete Masonry Units
- D75/D75M Practice for Sampling Aggregates
- D3080 Test Method for Direct Shear Test of Soils Under Consolidated Drained Conditions
- D5883 Guide for Use of Rotary Kiln Produced Expanded Shale, Clay or Slate (ESCS) as a Mineral Amendment in Topsoil Used for Landscaping and Related Purposes
- E2114 Terminology for Sustainability Relative to the Performance of Buildings
- E2396/E2396M Test Method for Saturated Water Permeability of Granular Drainage Media [Falling-Head Method] for Vegetative (Green) Roof Systems
- E2399/E2399M Test Method for Maximum Media Density for Dead Load Analysis of Vegetative (Green) Roof Systems
- E2400/E2400M Guide for Selection, Installation, and Maintenance of Plants for Green Roof Systems

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.