



Designation: E2788 – 11

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; 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 SI units are to be regarded as standard. The values given in parentheses are mathematical conversions to inch-pound units that are provided for information only and are not considered 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 and health 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.

Current edition approved Dec. 1, 2011. Published February 2012. DOI: 10.1520/E2788-11.

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 Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
- C131 Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
- C136 Test Method for Sieve Analysis of Fine and Coarse Aggregates
- C330 Specification for Lightweight Aggregates for Structural Concrete
- C331 Specification for Lightweight Aggregates for Concrete Masonry Units
- D75 Practice for Sampling Aggregates
- D4254 Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density
- D4767 Test Method for Consolidated Undrained Triaxial Compression Test for Cohesive Soils
- 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
- D6739 Test Method for Silica—pH Value
- E2114 Terminology for Sustainability Relative to the Performance of Buildings
- E2399 Test Method for Maximum Media Density for Dead Load Analysis of Vegetative (Green) Roof Systems

3. Terminology

3.1 Definitions:

- 3.1.1 For terms related to Expanded Shale, Clay and Slate (ESCS), refer to Terminology D5883.

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.