



Standard Practice for Roof System Assemblies Employing Steel Deck, Preformed Roof Insulation, and Bituminous Built-Up Roofing¹

This standard is issued under the fixed designation E 936; 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 practice covers the performance requirements for the design, components, construction, and service expectations of new roof system assemblies. For this purpose, the roof system always includes steel deck, preformed roof insulation, and bituminous built-up roofing, and their attachment. It may also include fire-resistive components, integral acoustical treatment, vapor retarder, adhesive or mechanical fastener attachment, and aggregates.

1.2 The objective is to provide realistic criteria for the overall performance of the roof assembly and its components because, by necessity and custom, a roof assembly contains a variety of components and is subject to varied environmental conditions.

1.3 To assist in the successful implementation of the installation and service requirements of the roof system assembly, criteria are established to provide for compatibility of the various components.

1.4 Nothing in this practice is intended to exclude products or systems not covered by the documents referenced in Section 2.

1.5 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other.

1.6 *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.*

2. Referenced Documents

2.1 ASTM Standards:²

A 446/A 446M Specification for Steel Sheet, Zinc-Coated

(Galvanized) by the Hot-Dip Process, Structural (Physical) Quality³

A 529/A 529M Specification for High-Strength Carbon-Manganese Steel of Structural Quality

A 570/A 570M Specification for Structural Steel, Sheet and Strip, Carbon, Hot-Rolled³

A 606 Specification for Steel, Sheet and Strip, High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, with Improved Atmospheric Corrosion Resistance

A 607 Specification for Steel, Sheet and Strip, High-Strength, Low-Alloy Columbium or Vanadium, or Both, Hot-Rolled and Cold-Rolled³

A 611 Specification for Structural Steel, Sheet, Carbon, Cold-Rolled³

A 653/A 653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

B 117 Practice for Operating Salt Spray (Fog) Apparatus

C 177 Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus

C 208 Specification for Cellulosic Fiber Insulating Board

C 209 Test Methods for Cellulosic Fiber Insulating Board

C 236 Test Method for Steady-State Thermal Performance of Building Assemblies by Means of a Guarded Hot Box³

C 518 Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus

C 550 Test Method for Measuring Trueness and Squareness of Rigid Block Thermal Insulation

C 552 Specification for Cellular Glass Thermal Insulation

C 578 Specification for Rigid, Cellular Polystyrene Thermal Insulation

C 726 Specification for Mineral Fiber Roof Insulation Board

C 728 Specification for Perlite Thermal Insulation Board

C 755 Practice for Selection of Vapor Retarders for Thermal Insulation

C 1013 Specification for Faced Rigid Cellular Polyisocyanurate Roof Insulation³

C 1126 Specification for Faced or Unfaced Rigid Cellular

¹ This practice is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.21 on Serviceability.

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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.

³ Withdrawn.