



Designation: C1787 – 23

# Standard Specification for Installation of Non Metallic Plaster Bases (Lath) Used with Portland Cement Based Plaster in Vertical Wall Applications<sup>1</sup>

This standard is issued under the fixed designation C1787; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This specification applies to the minimum installation requirements for non metallic plaster bases used with portland cement based plaster in vertical wall applications.

1.2 Where a fire resistance rating is required for plastered assemblies and constructions, details of construction shall be in accordance with reports of fire tests of assemblies that have met the requirements of the fire rating imposed.

1.3 *Units*—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 necessarily exact equivalents; therefore, to ensure conformance with the standard, each system shall be used independently of the other, and values from the two systems shall not be combined.

1.4 Details of construction for a specific assembly to achieve the required fire resistance, sound or acoustic rating shall be obtained from reports of fire-resistance tests, engineering evaluations, or listings from recognized fire testing, sound or acoustic laboratories.

1.5 *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.*

1.6 *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.*

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee C11 on Gypsum and Related Building Materials and Systems and is the direct responsibility of Subcommittee C11.03 on Specifications for the Application of Gypsum and Other Products in Assemblies.

Current edition approved July 1, 2023. Published August 2023. Originally approved in 2014. Last previous edition approved in 2020 as C1787 – 20. DOI: 10.1520/C1787-23.

## 2. Referenced Documents

2.1 *ASTM Standards*:<sup>2</sup>

C926 Specification for Application of Portland Cement-Based Plaster

C954 Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness

C1063 Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster

C1788 Specification for Non Metallic Plaster Bases (Lath) Used With Portland Cement Based Plaster in Vertical Wall Applications

C1861 Specification for Lathing and Furring Accessories, and Fasteners, for Interior and Exterior Portland Cement-Based Plaster

E631 Terminology of Building Constructions

## 3. Terminology

3.1 *Definitions*:

3.1.1 For definitions of terms used in this specification, refer to Terminology E631.

3.2 *Definitions of Terms Specific to This Standard*:

3.2.1 *portland cement based plaster, n*—see Specification C926.

3.2.2 *non metallic plaster base (lath), n*—a product manufactured from non metal materials that serves as a base for portland cement based plaster.

3.2.2.1 *Discussion*—Examples of non metallic materials include plastic, glass fiber, and nylon.

3.2.3 *framing member, n*—see Specification C1063.

## 4. Delivery and Storage of Materials

4.1 All materials shall be delivered in original, undamaged containers.

<sup>2</sup> 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.

4.2 Store materials inside or under cover protected from weather.

## 5. Coordination and Scheduling

5.1 Coordinate and schedule installation of non metallic plaster base with related work of other sections.

## 6. Materials

6.1 Materials shall conform to the requirements of the referenced specifications and standards and to the requirements specified herein.

6.2 *Portland Cement Based Plaster*, in accordance with Specification **C926**.

6.3 *Accessories*, in accordance with Specification **C1861**.

## 7. Application of Accessories

7.1 In accordance with Specification **C1063**.

## 8. Application of Non Metallic Plaster Bases

8.1 *Workmanship*—Non metallic plaster base shall be installed so the finished plaster surfaces are true to line, level, plumb, square, or curved as required to receive the specified plaster thickness.

8.2 *Application of Non Metallic Plaster Base:*

8.2.1 Non metallic plaster bases shall be attached to framing members at not more than 7 in. (178 mm) along framing members spaced not more than 16 in. (406 mm) on center.

8.2.2 Non metallic plaster base shall be installed over solid backing or sheathing sufficiently rigid to permit portland cement plaster application.

8.2.3 Non metallic plaster base shall be applied with the long dimension at right angles to the supports unless approved otherwise by the manufacturer and justified through compliance with the performance requirements set forth in Specification **C1788**.

8.2.4 Ends of adjoining non metallic plaster bases shall be staggered in a running bond pattern with adjacent rows of non metallic plaster base.

8.2.5 Non metallic plaster base shall not be continuous through control joints but shall be stopped and fastened at each side.

8.2.6 Non metallic plaster base shall only be installed to vertical surfaces.

8.3 *Attachment of Non Metallic Plaster Bases to Wood Framing:*

8.3.1 Non metallic plaster base shall be attached to framing members spaced not more than 16 in. (406 mm) on center with attachments spaced not more than 7 in. (178 mm) on center along supports.

8.3.2 Non metallic plaster base shall be attached with manufacturer recommended fasteners. Staples shall be minimum 16 gauge with crowns not less than  $\frac{3}{4}$  in. (19 mm), engage not less than two strands of non metallic plaster base and penetrate the wood framing members not less than  $\frac{3}{4}$  in. (19 mm).

8.4 *Attachment of Non Metallic Plaster Bases to Metal Framing:*

8.4.1 Non metallic plaster base shall be attached to framing members spaced not more than 16 in. (406 mm) on center with attachments spaced not more than 7 in. (178 mm) on center along supports.

8.4.2 Non metallic plaster bases shall be attached with manufacturers recommended fasteners. Specification **C954** screws or pneumatic pins and corrosion resistant washers shall engage not less than two strands of the non metallic plaster base and attach it to metal framing members. Screw fasteners shall extend through the steel connection a minimum of three exposed threads. Pneumatic pins shall extend through the steel connection in accordance with the minimum depth recommended by the pin manufacturer.

8.5 *Attachment of Non Metallic Plaster Bases to Concrete or Concrete Masonry Units:*

8.5.1 Non metallic plaster base shall be attached to concrete or concrete masonry units with attachments spaced not more than 7 in. (178 mm) on center in rows not more than 16 in. (406 mm) on center.

8.5.2 Non metallic plaster bases shall be attached with manufacturers recommended fasteners. Masonry, power, or powder actuated fastener and corrosion resistant washers shall engage not less than two strands of non metallic plaster base. Minimum fastener penetration into the concrete or concrete masonry units shall be not less than  $\frac{3}{4}$  in. (19 mm).

8.6 *Lapping of Non Metallic Plaster Bases:*

8.6.1 Side and end laps shall be 3 in. (76 mm) minimum unless justified through compliance with the performance requirements set forth in Specification **C1788** and recommended by the manufacturer.

## 9. Keywords

9.1 lath; non metallic plaster base; portland cement based plaster