UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated January 2021
****

SECTION TABLE OF CONTENTS

DIVISION 09 - FINISHES

SECTION 09 26 00

VENEER PLASTER

08/16, CHG 1: 08/18

PART 1 GENERAL

1.1 REFERENCES
1.2 GENERAL REQUIREMENTS
1.3 SUBMITTALS
1.4 DELIVERY AND STORAGE
1.5 SCHEDULING
1.6 ENVIRONMENTAL REQUIREMENTS
1.7 FIRE RESISTIVE CONSTRUCTION

PART 2 PRODUCTS

2.1 MATERIALS
2.1.1 Steel Framing, Furring, and Related Items
2.1.2 Vapor Retarder
2.1.3 Gypsum Backing Board
2.1.4 Gypsum Base
2.1.5 Gypsum Veneer Plaster
2.1.6 Joint Reinforcement
2.1.7 Joint Compound
2.1.8 Screws
2.1.9 Nails
2.1.10 Corner Bead, Casing Bead, and Control Joints

PART 3 EXECUTION

3.1 STEEL FRAMING
3.1.1 Partition Framing System
3.1.2 Special Framing
3.1.3 Shaftwall Framing System
3.1.4 Ceiling Openings
3.1.5 Wall Openings
3.1.6 Blocking
3.2 APPLICATION OF GYPSUM BASE
3.2.1 Curved Surfaces

3.2.2 Cavity Shaftwall System
3.2.3 Control Joints
3.2.4 Vapor Retarder
3.3 JOINT REINFORCEMENT
3.3.1 Mesh Reinforcing
3.3.2 Paper Tape Reinforcing
3.4 APPLICATION OF GYPSUM VENEER PLASTER
3.4.1 Mixing
3.4.2 Application
3.4.2.1 Base Coat
3.4.2.2 Finish Coat
3.5 CLEANUP AND PATCHING

-- End of Section Table of Contents --

****

USACE / NAVFAC / AFCEC / NASA	**UFGS-09 26 00 (August 2016)** **Change 1 - 08/18**
Preparing Activity: NAVFAC	**Superseding** **UFGS-09 26 00 (May 2011)**

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated January 2021

****

SECTION 09 26 00

VENEER PLASTER
08/16, CHG 1: 08/18

****

NOTE: This guide specification covers the requirements for veneer plaster systems.

Adhere to UFC 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard when editing this guide specification or preparing new project specification sections. Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable item(s) or insert appropriate information.

Remove information and requirements not required in respective project, whether or not brackets are present.

Comments, suggestions and recommended changes for this guide specification are welcome and should be submitted as a Criteria Change Request (CCR).

****

****

NOTE: Veneer plaster consists of a 2 to 3 mm 1/16 to 1/8 inch thick plaster coating applied in one or more coats to a special gypsum lath base over metal or wood framing. Veneer plaster provides a hard, dense finish for areas such as corridors and conference rooms of major facilities where walls are subjected to frequent impact and where appearance is important. It should not be used in shower rooms or excessively humid areas.

****

****

NOTE: On the drawings, indicate location and extent of each type of veneer plaster and control joints.

****

PART 1 GENERAL

1.1 REFERENCES

****
NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a Reference Identifier (RID) outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.
****

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM C475/C475M	(2017) Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board
ASTM C514	(2004; R 2020) Standard Specification for Nails for the Application of Gypsum Board
ASTM C587	(2004; R 2014) Gypsum Veneer Plaster
ASTM C631	(2009; R 2020) Bonding Compounds for Interior Gypsum Plastering
ASTM C645	(2014; E 2015) Nonstructural Steel Framing Members
ASTM C754	(2020) Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products
ASTM C843	(2017) Standard Specification for Application of Gypsum Veneer Plaster
ASTM C844	(2015) Application of Gypsum Base to Receive Gypsum Veneer Plaster
ASTM C954	(2018) Standard 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
ASTM C1002	(2018) Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs
ASTM C1047	(2019) Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base
ASTM C1396/C1396M	(2017) Standard Specification for Gypsum Board
ASTM D3678	(2019) Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Interior-Profile Extrusions

FM GLOBAL (FM)

FM APP GUIDE	(updated on-line) Approval Guide http://www.approvalguide.com/

UNDERWRITERS LABORATORIES (UL)

UL Fire Resistance	(2014) Fire Resistance Directory

1.2 GENERAL REQUIREMENTS

****
NOTE: Select either the one or two-coat system. The one-coat is slightly lower in cost, requires less installation time, and requires only one plastering material on the job. The two-coat system has greater crack resistance and is more resistant to damage. The one-coat system should be used where appearance is the sole consideration. The two-coat system should be used where physical abuse is a consideration.
****

Except where otherwise indicated or specified, conform to ASTM C754, ASTM C843, and ASTM C844. Apply the gypsum veneer plaster as a [one coat] [two coat] system over a special gypsum base. The veneer plaster, gypsum base, and joint reinforcement must be products of the same manufacturer. The extent and location of veneer plaster must be as shown on the drawings. Metal framing is specified herein.[Wood framing specified in Section 06 10 00 ROUGH CARPENTRY may be used as an option to the steel framing.]

1.3 SUBMITTALS

****
NOTE: Review Submittal Description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list, and corresponding submittal

items in the text, to reflect only the submittals required for the project. The Guide Specification technical editors have classified those items that require Government approval, due to their complexity or criticality, with a "G." Generally, other submittal items can be reviewed by the Contractor's Quality Control System. Only add a "G" to an item if the submittal is sufficiently important or complex in context of the project.

For Army projects, fill in the empty brackets following the "G" classification, with a code of up to three characters to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy, Air Force, and NASA projects.

The "S" classification indicates submittals required as proof of compliance for sustainability Guiding Principles Validation or Third Party Certification and as described in Section 01 33 00 SUBMITTAL PROCEDURES.

Choose the first bracketed item for Navy, Air Force, and NASA projects, or choose the second bracketed item for Army projects.

****

Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are [for Contractor Quality Control approval.][for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government.] Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Gypsum Base

Gypsum Veneer Plaster

[Recycled Content for Steel Framing or Furring; S

] Descriptive data and installation instructions.

1.4 DELIVERY AND STORAGE

Deliver and store plaster materials in the manufacturer's original unopened containers. Store materials off the ground within a completely enclosed structure or enclosed within a weathertight covering. Store gypsum base and gypsum backing board flat to prevent warping and protect from excessive exposure to sunlight. Keep materials wrapped and separate from off-gassing materials, such as paint and adhesives. Do not use materials that have visible moisture or biological growth.

1.5 SCHEDULING

Commence application only after the area scheduled for veneer plaster work is completely weathertight. The heating, ventilating, and air-conditioning systems must be complete and in operation prior to application of the plaster. If the mechanical system cannot be activated before veneer plastering is begun, the plastering may proceed in accordance with an approved plan to maintain the environmental conditions specified below. Apply plaster prior to the installation of finish flooring and acoustic ceiling.

1.6 ENVIRONMENTAL REQUIREMENTS

****

NOTE: Veneer plaster is a very thin coating that will be adversely affected by extreme or non-uniform drying conditions and by rapid changes in temperature. It should not be used in spaces where adequate environmental control cannot be obtained.

****

Do not expose the gypsum base to excessive sunlight prior to plaster application, as bond failure of the plaster may result. Maintain a continuous uniform temperature of not less than 10 degrees C 50 degrees F and not more than 27 degrees C 80 degrees F for at least one week prior to the application of veneer plaster, while the plastering is being done, and for at least one week after the plaster is set. Shield air supply and distribution devices to prevent any uneven flow of air across the plastered surfaces. Provide ventilation to exhaust moist air to the outside during plaster application, set, and until plaster is dry. In glazed areas, keep windows open top and bottom or side to side 75 to 100 mm 3 to 4 inches. Openings can be reduced in cold weather. For enclosed areas lacking natural ventilation, provide temporary mechanical means for ventilation. In unglazed areas subjected to hot, dry winds or temperature differentials from day to night of 10 degrees C 20 degrees F or more, screen openings with cheesecloth or similar materials. Avoid rapid drying. During periods of low indoor humidity, provide minimum air circulation following plastering and until plaster is dry.

[1.7 FIRE RESISTIVE CONSTRUCTION

****

NOTE: For fire-resistive assemblies, drawing details must follow the tested and approved designs. The addition of veneer plaster to an approved gypsum wallboard design will improve the fire-resistive properties of the partitions. Tested and approved designs are published by gypsum wallboard manufacturers, Underwriters Laboratory, and Factory Mutual, and are included in the Gypsum Association Fire Resistance Design Manual.

****

Comply with specified fire-rated assemblies for design numbers indicated per UL Fire Resistance or FM APP GUIDE.

]PART 2 PRODUCTS

2.1 MATERIALS

****
NOTE: The designer must assure that the drawings show the required thickness for gypsum base and gypsum backing board for all application.
****

Conform to the requirements specified below. Miscellaneous items not otherwise specified must be as recommended by the veneer plaster system manufacturer and approved prior to use. Powder driven fasteners may be used only when approved in writing.

****
NOTE: Use materials with recycled content where appropriate for use. Verify suitability, availability within the region, cost effectiveness and adequate competition before specifying product recycled content requirements.

Research shows the product is available from US national manufacturers above the minimum recycled content shown.
****

2.1.1 Steel Framing, Furring, and Related Items

ASTM C645.[Provide steel framing, furring, and related items that contain a minimum of 25 percent recycled content. Provide data identifying percentage of recycled content for steel framing or furring.]

2.1.2 Vapor Retarder

Foil-backed gypsum base or gypsum backing board, or 4-mil polyethylene.

2.1.3 Gypsum Backing Board

ASTM C1396/C1396M, [Regular] [Foil-backed] [Water-Resistant] [Type X]. Provide boards with square edges as the first ply in two-ply application. Provide 1200 mm 48 inches wide boards, thickness as shown except that board used for liner panels and core plies of shaftwall construction must be the size and thickness recommended by the system manufacturer.

2.1.4 Gypsum Base

ASTM C1396/C1396M, [Regular] [Foil-backed] [Type X], 1200 mm 48 inches wide, thickness as shown. Provide square edges, rounded, or tapered as recommended by the veneer plaster manufacturer.

2.1.5 Gypsum Veneer Plaster

ASTM C587. Minimum compressive strength of finish coat plaster must be 17 MPa 2500 psi.

2.1.6 Joint Reinforcement

ASTM C475/C475M, Mesh reinforcing strip or paper tape as recommended by

the veneer plaster manufacturer.

2.1.7 Joint Compound

ASTM C475/C475M.

2.1.8 Screws

ASTM C1002or ASTM C954, type appropriate to use.

2.1.9 Nails

ASTM C514, with corrosion-resistant treatment.

2.1.10 Corner Bead, Casing Bead, and Control Joints

ASTM C1047 [or] [ASTM D3678], Corrosion protective-coated steel[, vinyl or clear anodized aluminum] as recommended by the veneer plaster manufacturer. Provide flanges free of any material that would adversely affect bonding of the plaster.

PART 3 EXECUTION

3.1 STEEL FRAMING

****

NOTE: Since the veneer plaster is a thin, hard coating, it may be damaged by excessive deflection or racking of the partition. Partitions should be isolated from the structural building frame so that movement of the frame does not distort the partitions. Where heavy loads such as wall hung cabinets, counters or hospital TV sets are indicated, the partitions must be strengthened to support the applied loads.

****

ASTM C754. Space framing at 400mm 16 inches on center maximum. Partitions must support applied loads such as cabinets and counters without exceeding the permitted deflection.

3.1.1 Partition Framing System

Metal non-load bearing framing and furring system must be capable of carrying a transverse load of 24 ksm 5 psf without exceeding either the allowable stress or a deflection of L/240. Provide studs of 0.45 mm 0.0179 inch minimum thickness for partitions having the same material and the same material thickness on both sides. For partitions using 0.45 mm 0.0l79 inch thick studs, the surfacing material must cover the full height of the partition on both sides, or the stud flange must be otherwise supported to insure rigidity. Provide studs of 0.84 mm 0.0329 inch minimum thickness for partitions having different materials or different material thickness on the two sides. At partition ends, corners, and intersections, and at jambs of openings, fasten studs to runners with screws.

3.1.2 Special Framing

Build framing for beams, columns, soffits, and other special items to the

sizes, shapes, or forms indicated. Secure rigidly at each intersection with screws.

3.1.3 Shaftwall Framing System

Shaftwalls must be standard, tested designs. Metal framing must be in accordance with the shaftwall manufacturer's printed instructions.

3.1.4 Ceiling Openings

Provide support members at ceiling openings such as required for access panels, recessed light fixtures, and for air supply or exhaust. Locate support members of not less than 38 mm 1 1/2 inch main runner channels and suspension wires or straps to provide at least the minimum support specified herein for furring and wallboard attachment. Provide intermediate structural members for attachment or suspension of support members.

3.1.5 Wall Openings

At wall openings the framing system must provide for the installation and anchorage of the required subframes or finish frames. Attach steel frames securely through built-in anchors to the nearest stud on each side of the opening with wallboard screws. Provide 0.84 mm 0.329 inch minimum thickness double studs at both jambs of all doors openings. For doors over 1200 mm 4 feet wide, double doors, and for extra-heavy doors (such as x-ray doors), provide doubled studs [_____] millimeters inches minimum thickness. Spot grout door frames at the jamb anchor locations with joint compound applied just prior to application of gypsum base.

3.1.6 Blocking

Provide blocking when mounting equipment. Cut[metal][or][wood] blocking to fit in between the framing members. Rigidly anchor blocking to the framing members. Under no circumstances will accessories or other wall mounted equipment be anchored directly to the veneer plaster system.

3.2 APPLICATION OF GYPSUM BASE

Apply gypsum base and gypsum backing board to framing and furring members in accordance with ASTM C844 and the requirements specified herein. Gypsum wallboard may be used for the base ply in two-ply construction. Provide gypsum base and backing board of maximum practical length, using full length boards for vertical application. Install separate boards in moderate contact without forcing in place. Install boards tight against the framing so as to eliminate any offset in the face plane between adjoining boards. Stagger end joints of adjoining boards. Fit abutting end and edge joints. Cut boards as required to make close joints around openings. Gypsum base may be adhered to gypsum backing board with an adhesive, except where prohibited by fire rating. In multi-layer construction, offset joints between layers. Offset joints on opposite faces of the partition.

3.2.1 Curved Surfaces

Use bending radii in accordance with ASTM C844, TABLE 5. Bend gypsum base into place without damaging the face paper. If the base is dampened to facilitate bending, dry thoroughly, and apply a bonding agent (ASTM C631) before plastering.

3.2.2 Cavity Shaftwall System

Install gypsum backing boards, core boards, and gypsum base in accordance with the shaftwall system manufacturer's printed recommendations to achieve the fire rating required.

3.2.3 Control Joints

****

NOTE: Control joint locations should be shown on the drawings. Control joint spacing in walls or wall furring must not exceed 9000 mm 30 feet. Control joint spacing must not exceed 9000 mm 30 feet in either direction in restrained ceilings, and 15000 mm 50 feet in either direction in ceilings with perimeter relief. Joints should be provided at the wings of L, U, and T shaped ceiling areas.

****

Control joints in ceilings and walls must be one piece manufactured products designed for use with a veneer plaster system.

3.2.4 Vapor Retarder

Install foil-backed gypsum base or gypsum backing board with the reflective surface against the framing members. Install polyethylene vapor retarder with joints over framing members, and with joints lapped the full width of the framing members.

3.3 JOINT REINFORCEMENT

Reinforce all interior angles and flat joints prior to application of the veneer plaster. Do not use self-adhering fiberglass mesh tape. Reinforcement must be a special mesh reinforcing strip embedded in veneer plaster, or paper gypsum wallboard tape embedded in joint compound.

3.3.1 Mesh Reinforcing

Embed the mesh reinforcing strip in veneer plaster, so that embedment material is both under and covering the reinforcement. Allow areas of reinforcement to preset, and leave rough enough for proper bonding of the plaster coat. Reinforcement must be set but not dry, before the application of veneer plaster.

3.3.2 Paper Tape Reinforcing

Press the paper tape into a bedding coat of setting type joint compound, and immediately cover with a skim coat of the same compound. After the bedding and skim coats are set, apply a fill coat of joint compound. Set the reinforcement and dry thoroughly before application of veneer plaster.

3.4 APPLICATION OF GYPSUM VENEER PLASTER

****

NOTE: Veneer plaster may be applied to masonry or concrete surfaces as well as to gypsum base. Special conditioning and treatment are required for masonry or concrete surfaces to receive veneer

plaster. Review ASTM C843 and manufacturer's literature to determine requirements applicable to the project, and modify this section accordingly. Note that any cracking of the substrate will result in cracking of the plaster.
****

Apply gypsum veneer plaster in accordance with ASTM C843, and with the manufacturer's approved installation instructions where such instructions are additional to or more restrictive than the requirements of ASTM C843. Apply plaster as a [one-component] [two-component] system. Minimum plaster thickness must be as recommended by the manufacturer, but must in no case be less than[1.6 mm1/16 inch for one-component system.] [1.6 mm 1/16 inch for base coat and 0.8 mm 1/32 inch for finish coat of a two-component system.]

3.4.1 Mixing

Clean mixer between batches to avoid accelerating the setting time. Do not add other plaster materials to modify the properties of the veneer plaster. When extreme conditions so demand, small quantities of commercial retarder or accelerator may be added to the mixing water to adjust setting time. When used, the retarder or accelerator must conform to the veneer plaster manufacturer's recommendations.

3.4.2 Application

Trowel plaster on by hand. Apply with sufficient material and pressure to develop bond and to provide the specified component thickness.

3.4.2.1 Base Coat

****
NOTE: Delete base coat requirements when one-component system is desired.
****

Scratch in the base coat tightly, then immediately double back using material from the same batch. Fill all voids and imperfections and level the plaster to a true surface without the application of water. For good bond or adhesion, roughen the final surface for bond by brushing or cross-raking with a fine wire rake. For application of finish coat, set the base coat and partially dry. If the base coat is totally dry, dampen before finish coat application.

3.4.2.2 Finish Coat

****
NOTE: A smooth-troweled finish will normally be specified. If a textured finish is desired, it may be added to the specification. The texture pattern should be specified, i.e., swirl, skip trowel, etc. Some texture finishes may require a greater coating thickness.
****

Scratch in the finish coat tightly, then immediately double back using material from the same batch. After the plaster has been allowed to set up slightly, lightly trowel the surface without the addition of water,

filling all voids and imperfections and eliminating surface irregularities. When the plaster has become firm and prior to set, smooth-trowel the surface using water sparingly. Avoid over troweling.

3.5 CLEANUP AND PATCHING

Remove plaster splashes from adjacent surfaces. Repair defects in the veneer plaster. Plaster surfaces must be smooth, clean, and in condition to receive the finishing materials that will be applied.

-- End of Section --