

Preparing Activity: NASA

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Superseding  
UFGS-09 23 82 (May 2010)  
UFGS-09 23 82.00 40 (May 2015)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated January 2023

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SECTION 09 23 82

FIREPROOF GYPSUM PLASTERING  
11/19

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NOTE: This guide specification covers the requirements for fire protection applications of specified plaster bases.

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).

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PART 1 GENERAL

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NOTE: Associated work found in other sections includes metal framing, furring systems, and metal lath, and standard gypsum plastering applications. Show areas and location of application and installation details on drawings.

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1.1 REFERENCES

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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.

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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 E84 (2020) Standard Test Method for Surface Burning Characteristics of Building Materials
- ASTM E119 (2022) Standard Test Methods for Fire Tests of Building Construction and Materials
- ASTM E605 (1993; R 2011) Thickness and Density of Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members
- ASTM E736 (2000; R 2011) Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members
- ASTM E761/E761M (1992; R 2020) Standard Test Method for Compressive Strength of Sprayed Fire-Resistive Material Applied to Structural Members

INTERNATIONAL CODE COUNCIL (ICC)

- ICC IBC (2021) International Building Code

1.2 ADMINISTRATIVE REQUIREMENTS

1.2.1 Pre-Installation Meetings

Within [30] [\_\_\_\_\_] days of Contract Award, the Contracting Officer will schedule [a] Pre-Installation meeting[s]. Submit the following for review and approval at the Pre-Installation meeting:

- a. Installation Drawings
- b. Manufacturer's Catalog Data

- c. Fireproofing Plaster Sample
- d. Certificates of Conformance
- [ e. Special Provisions

]1.3 SUBMITTALS

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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.

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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-02 Shop Drawings

Installation Drawings[; G[, [\_\_\_\_]]]

SD-03 Product Data

Manufacturer's Catalog Data[; G[, [\_\_\_\_]]]

SD-04 Samples

Fireproofing Plaster Sample[; G[, [\_\_\_\_]]]

Mockups[; G[, [\_\_\_\_]]]

SD-07 Certificates

Certificates of Conformance[; G[, [\_\_\_\_]]]

SD-08 Manufacturer's Instructions

Manufacturer's Instructions[; G[, [\_\_\_\_]]]

Special Provisions[; G[, [\_\_\_\_]]]

1.4 DELIVERY, STORAGE, AND HANDLING

Deliver materials in original unopened packages bearing the name of the product, manufacturer's name, and the Underwriters Laboratories, Inc. label.

Store materials off the ground, under cover, and away from damp surfaces and keep dry until ready to use. Discard all materials that have been exposed to water before use.

1.5 QUALITY CONTROL

1.5.1 Catalog Data

Submit **manufacturer's catalog data** for fireproof plaster showing applicable flame spread classification, fuel contribution, and smoke developed.

1.5.2 Plaster Sample

Submit no less than **0.2 kilogram 1/2 pound** of **Fireproofing Plaster Sample** for review and approval.

1.5.3 Drawing Requirements

Submit **installation drawings** indicating the fireproof plaster, framing and furring as indicated and specified. Ensure components of the installation drawings meet the requirements of indicated and specified fireproofing.

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**NOTE: Coordinate with drawings for the appropriate  
hour rating assembly.**  
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1.5.4 Four Hour Fire Rated Construction

Prior to the commencement of work, submit **certificates of conformance** for fireproof plaster showing conformance with the **ICC IBC**, "International Building Code", "Requirements for Four-Hour Construction". Submit **manufacturer's instructions** for Fireproof Plaster[ including **special provisions** required to install equipment components and system packages]. Indicate all detail impedances, hazards and safety precautions on drawings.

#### [1.5.5 Mockups

Build mockups to demonstrate aesthetic effects and to set quality standards for materials and execution.

### ]PART 2 PRODUCTS

#### 2.1 MATERIALS

##### 2.1.1 Fireproof Plaster

Provide gypsum-vermiculite fireproof plaster mix, consisting of one part gypsum to two parts vermiculite, conforming to ICC IBC, "Requirements for 4-Hour Construction".

Ensure cohesion of the dry set material is such that the fireproofing coat will not crack or delaminate when the structural [steel] element is subjected to a downward deflection of 1/120 of the span, and the minimum compressive strength requirement in accordance with ASTM E761/E761M is not less than 485 kilopascal 70 pounds per square inch.

Provide set and dried material, which when tested in accordance with ASTM E84, yields the following characteristics:

- a. Flame spread 10
- b. Fuel contributed 5
- c. Smoke developed 0

##### 2.1.2 Water

Use only potable water for mixing.

### PART 3 EXECUTION

#### 3.1 INSTALLATION

Apply fireproofing plaster as specified to those areas indicated on drawings. Install per details as indicated on drawings.

##### 3.1.1 Application

Provide [pneumatic] [or] [and] [trowelled] application of fireproofing plaster in accordance with material manufacturer's written recommendations and ASTM E736. Provide thickness of application as indicated and in compliance with ASTM E605 and the applicable fire and local codes to provide rated fireproofing when tested in accordance with ASTM E119.

Provide framing and furring that meets the requirements of [09 22 00][09 22 36], and [as recommended by manufacturer for the installation of the fireproofing plaster thickness required][as indicated in the drawings].

#### 3.2 ADJUSTING AND CLEANING

After completion of fireproofing work, remove all application equipment. Clean all areas of ceilings, walls, and floors, adjacent or exposed to the operations of application of the fireproofing material, and other surfaces

and finishes that may have been soiled by fireproofing materials.

Remove any damaged or unacceptable portions of the fireproofing plaster and replace with new work at no additional cost to the Government.

-- End of Section --