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USACE / NAVFAC / AFCEA / NASA                      UFGS-12 48 13.13 40 (April 2006)  
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Preparing Activity:    NASA                              Superseding  
    NASA-12485 (December 2005)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are NOT in agreement with UMRL dated 01 April 2006

Revised throughout - changes not indicated by CHG tags

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### SECTION 12 48 13.13 40

#### ENTRANCE AND FLOOR MATS 04/06

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NOTE: Delete, revise, or add to the text in this section to cover project requirements. Notes are for designer information and will not appear in the final project specification.

This section covers entrance and floor mats for surface installation, including resilient link mats, rubber-vinyl mats, rubber-tire mats, carpet-type mats, loop-filament mats, nylon-reinforced mats, coconut brush mats, and custom graphics.

Drawings must indicate location, size, and shape of mats.

Comments and suggestions on this guide specification are welcome and should be directed to the technical proponent of the specification. A listing of technical proponents, including their organization designation and telephone number, is on the Internet.

Recommended changes to a UFGS should be submitted as a Criteria Change Request (CCR).

Use of electronic communication is encouraged.

Brackets are used in the text to indicate designer choices or locations where text must be supplied by the designer.

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## PART 1    GENERAL

### 1.1    SUBMITTALS

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NOTE: Review Submittal Description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list to reflect only the submittals required for the project. Submittals should be kept

to the minimum required for adequate quality control.

A "G" following a submittal item indicates that the submittal requires Government approval. Some submittals are already marked with a "G". Only delete an existing "G" if the submittal item is not complex and can be reviewed through the Contractor's Quality Control system. Only add a "G" if the submittal is sufficiently important or complex in context of the project.

For submittals requiring Government approval on Army projects, a code of up to three characters within the submittal tags may be used following the "G" designation 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.

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" designation; submittals not having a "G" designation are [for Contractor Quality Control approval.] [for information only. When used, a designation following the "G" designation 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

Manufacturer's data must be submitted indicating percentage of [recycled material content](#) in protective flooring materials [Entrance and Floor Mats](#) to verify affirmative procurement compliance.

Total weight and volume quantities of [protective flooring materials](#) with recycle material must be submitted.

#### SD-04 Samples

Submit [manufacturer's standard color charts](#) for [Entrance and Floor Mats](#) showing the manufacturer's recommended color and finish selections.

Submit one sample [300 mm 12 inch](#) square, assembled sections of floor mat to show corners, intersections, and other details of construction. Provide any graphics in drawing for approval.

Comply with Section 4.5 in the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities

(ADAAG) for installed entrance and floor mats.

## PART 2 PRODUCTS

### 2.1 AFFIRMATIVE PROCUREMENT

Mats are listed in the EPA's Comprehensive Procurement Guidelines (CPG ) at <http://www.epa.gov/epaoswer/non-hw/procure/products/mats.htm>.

EPA's recommended Recovered Materials Content Levels for Mats.

| Product | Material                     | Percent Of Post<br>Consumer Materials | Percent Of Total<br>Recovered Materials |
|---------|------------------------------|---------------------------------------|---|
| Mats    | Rubber                       | 75 - 100                              | 85 - 100                                |
|         | Plastic                      | 10 - 100                              | 100                                     |
|         | Rubber/<br>Plastic composite | 100                                   | 100                                     |

The recommended recovered materials content levels are based on the dry weight of the raw materials, exclusive of any additives such as adhesives, binders, or coloring agents. EPA's recommendation does not preclude procuring agencies from purchasing mats manufactured from another material. It simply recommends that procuring agencies, when purchasing mats made from rubber or plastic, purchase these items made from recovered materials.

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**NOTE: If the Architect/Engineer determines that use of certain materials meeting the CPG content standards and guidelines would result in inadequate competition, do not meet quality/performance specifications, are available at an unreasonable price or are not available within a reasonable time frame, the Architect/Engineer may submit to [Contractor] [AF Contracting Officer] a written justification and supporting documentation for not procuring designated items containing recovered material using the Recovered Materials Determination Form.**  
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For informational purposes, a list of known sources for mats using recycled material is provided in the EPA/CPG Supplier database at [http://www.ergweb2.com/cpg4review/user/cpg\\_search.cfm](http://www.ergweb2.com/cpg4review/user/cpg_search.cfm).

Note that the Contractor is not limited to these sources. A product meeting CPG recycle requirements from other sources may be submitted for the Government's approval.

Contractor must submit [recycled material content](#) data for [protective flooring materials](#) indicating compliance with affirmative procurement.

Contractor must submit total weight and volume quantities of [protective flooring materials](#) with recycle material.

## 2.2 TYPE OF MATS

### 2.2.1 Resilient Link Mats

Entrance and Floor Mats of the no-hole, link-mat type designed for reversibility. Mats must be squares or strips of resilient flame-retardant, virgin polyvinylchloride, with wiping blades on each side. Framework must be 2.3 millimeter 13-gage, double-galvanized, spring-steel wire. Nosing must be beveled for surface installation extending out approximately 50 millimeter 2 inch around the mat perimeter.

Color of Resilient Link Mats must be [\_\_\_\_\_].

Size of Resilient Link Mats must be [\_\_\_\_\_].

### 2.2.2 [Rubber] [or] [Vinyl] Mats

Provide [Rubber] [or] [Vinyl] Mats of [ 6 mm 1/4 inch] [ 9.5 mm 3/8 inch] [ 11 mm 7/16 inch] [ 13 mm 1/2 inch] [\_\_\_\_\_] thick mats; with [square edges for recessed installations] [beveled edges for surface applications] and with [solid sheet (no perforations) style] [perforated style, 6 mm 1/4 inch diameter on standard spacing] [perforated style, 5 mm by 19 mm 3/16 inch by 3/4 inch on standard spacing], [standard pyramid design] [standard wide-wale corrugated] [hi-rib, narrow-wale corrugated] top profile, and [low-rib, narrow-wale corrugated] [standard knob-base] [flat-base] bottom surface.

Entrance mats must be rubber, nonslip, of a prime quality rubber compound free of calendering and curing defects, and resistant to weather aging and ozone in normal concentrations. Mats must have a pyramid or corrugated surface with knob back for maximum aeration. Thickness must be approximately 13 millimeter 1/2 inch. Mats must have beveled edges for surface installations.

Color of [Rubber] [or] [Vinyl] Mats must be [\_\_\_\_\_].

Size of [Rubber] [or] [Vinyl] Mats must be [\_\_\_\_\_].

### 2.2.3 Cocoa Mats

Entrance mats must be coconut brush mats made of quality coir yarn from coconut fibers. Fibers must be woven tightly together and securely bound around the perimeter with matching coir yarn rope. Top must be sheared to a thickness of approximately 40 millimeter 1-1/2 inch to give an even, flat brush appearance.

Color of Cocoa Mats must be [\_\_\_\_\_].

Size of Cocoa Mats must be [\_\_\_\_\_].

### 2.2.4 Rubber-Tire Mats

Entrance and Floor Mats must be the industrial type, rubber-tire fabric mats that have uniform-size links a minimum of 16 millimeter 5/8 inch thick, and made from recycled selected truck and bus tires. Links must be woven in a herringbone design on galvanized spring-steel wire. Mats must have approximately 50 millimeter 2 inch wide beveled nosing for surface use.

Size of Rubber-Tire Mats must be [\_\_\_\_\_].

#### 2.2.5 Carpet-Type Mats

Provide Carpet-Type Mats of [Nylon] [Polypropylene] [Olefin] [Polyester] [\_\_\_\_\_] carpet. Bond carpet mats to 3 mm to 6 mm 1/8 inch to 1/4 inch thick. Provide flexible vinyl backing to form mats 9.5 mm or 11 mm 3/8 inch or 7/16 inch thick with non-raveling edges.

Color of Carpet-Type Mats must be [\_\_\_\_\_].

Size of Carpet-Type Mats must be [\_\_\_\_\_].

#### 2.2.6 Loop Filament Mats

Provide Loop Filament Mats of [ 9.5 mm3/8 inch] [ 13 mm1/2 inch] thick, with [solid vinyl sheet] [foam sheet]. Provide backing and with built-in chemical agents to reduce fungus and mildew.

Color of Loop Filament Mats must be [\_\_\_\_\_].

Size of Loop Filament Mats must be [\_\_\_\_\_].

#### 2.2.7 Nylon-Reinforced Mats

Provide Nylon-Reinforced Mats of 13 mm 1/2 inch wide by [ 11 mm7/16 inch] [ 17.4 mm 11/16 inch] thick, laminated rubber strips alternating with 14 mm 9/16 inch wide, profile shapes assembled on 2.7 mm 0.106 inch diameter, galvanized steel wire, 38 mm 1-1/2 inch on center. Provide fibered surface [buffed on rubber strips for interior] [un-buffed on rubber strips for exterior] installations.

Color of Nylon-Reinforced Mats must be [\_\_\_\_\_].

Size of Nylon-Reinforced Mats must be [\_\_\_\_\_].

### 2.3 GRAPHICS

Provide details in drawing of graphics [emblem] [logo] [design] along with assembled section of floor mat and manufacturer's standard color charts.

## PART 3 EXECUTION

### 3.1 DELIVERY OF MATERIALS

Deliver materials to the project site in their original packages or containers bearing labels clearly identifying the manufacturer, brand name, and quality or grade.

Store materials in their original unbroken packages or containers in the area in which they will be installed. Unwrap, inspect, and place mats at indicated location.

Contractor must remove and dispose excess packing materials.

### 3.2 EXAMINATION

Comply with manufacture's requirements of substrates and floor conditions for location, sizes, and other conditions affecting installation of floor mats and frames.

### 3.3 INSTALLATION

Install only in satisfactory conditions. Comply with manufacturer's written printed instructions for recessed mat frames. Set mat tops at height recommended by manufacturer for most effective cleaning action. Coordinate top of mat surfaces with bottom of doors that swing across mats to provide clearance between door and mat.

Install grout and fill around frames and, if required to set mat tops at proper elevations, in recesses under mats. Finish grout and fill smooth and level. Install surface-type units to comply with manufacturer's written printed instructions at locations indicated. Coordinate with other trades, entrance locations and traffic patterns.

-- End of Section --