UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated January 2021
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08/17

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SECTION 12 34 00

MANUFACTURED PLASTIC CASEWORK
08/17

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NOTE: This guide specification covers the requirements for manufactured plastic casework.

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 items(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).
****

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.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

ASME B18.6.1	(2016) Wood Screws (Inch Series)

ASTM INTERNATIONAL (ASTM)

ASTM A240/A240M	(2020) Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
ASTM C1036	(2016) Standard Specification for Flat Glass
ASTM D4000	(2016) Standard Classification System for Specifying Plastic Materials
ASTM D4689	(2012) Standard Specification for Adhesive, Casein-Type
ASTM D4690	(2012) Standard Specification for Urea Formaldehyde Resin Adhesives
ASTM F594	(2009; R 2020) Standard Specification for Stainless Steel Nuts
ASTM F836M	(2020) Standard Specification for Style 1 Stainless Steel Metric Nuts (Metric)
ASTM F3125/F3125M	(2019) Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated, Inch Dimensions 120 ksi and 150 ksi Minimum Tensile Strength, and Metric Dimensions 830 MPa and 1040 MPa Minimum Tensile Strength

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA)

ANSI/BHMA A156.9	(2015) Cabinet Hardware

KITCHEN CABINET MANUFACTURERS ASSOCIATION (KCMA)

KCMA A161.1	(2017) Performance & Construction Standards for Kitchen and Vanity Cabinets

MASTER PAINTERS INSTITUTE (MPI)

MPI 10	(2016) Latex, Exterior Flat (MPI Gloss

	Level 1)
MPI 11	(2016) Latex, Exterior Semi-Gloss, MPI Gloss Level 5
MPI 119	(2016) Latex, Exterior, Gloss (MPI Gloss Level 6)

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

ANSI/NEMA LD 3	(2005) Standard for High-Pressure Decorative Laminates

SCIENTIFIC EQUIPMENT AND FURNITURE ASSOCIATION (SEFA)

SEFA 7	(2007) Recommended Practice for Laboratory and Hospital Fixtures

U.S. GENERAL SERVICES ADMINISTRATION (GSA)

CID A-A-59295	Corrosion Preventive Compounds, Cold Application(For New And Fielded Motor Vehicles And Trailers)
FS FF-B-588	(Rev E; Notice 1) Bolt, Toggle: and Expansion Sleeve, Screw
FS FF-S-325	(Basic; Int Amd 3; Notices 3, 4) Shield, Expansion; Nail, Expansion; and Nail, Drive Screw (Devices, Anchoring, Masonry)
FS TT-C-490	(Rev G; 2019) Cleaning Methods for Ferrous Surfaces and Pretreatments for Organic Coatings
FS TT-F-336	(Rev E; Notice 1) Filler, Wood, Paste
FS WW-P-541	(Rev E; Am 1; Notice 1) Plumbing Fixtures

1.2 ADMINISTRATIVE REQUIREMENTS

1.2.1 Pre-Installation Meeting

Within [30] [_____] calendar days after [date of award] [date of receipt of notice of award], submit for the approval of the Contracting Officer [6] [_____] copies of outline drawings of all casework to be furnished under this contract, together with weights, overall dimensions, and required samples. Ensure that drawings show the general arrangement and overall dimensions of the casework, details of any casework supports[.][, and provisions for electrical outlets[.]][, special provisions for external cables and cords.] Submit the following for review and approval:

a. Fabrication Drawings

b. Installation Drawings

c. Casework Samples

d. Manufacturer's Standard Color Charts

e. Accessories and Hardware Samples

f. Certificates of Conformance

Submit installation drawings for manufactured plastic casework. Include in drawings location of cabinets, details of cabinets related and their dimensional positions[.][, and locations for roughing in plumbing, including sinks, faucets, strainers and cocks.]

Submit casework samples in accordance with ASTM D4000, and include accessories and hardware, one each.

Submit manufacturer's standard color charts for plastic cabinets, showing the manufacturer's recommended color and finish selections.

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-02 Shop Drawings

Fabrication Drawings; G[, [____]]

Installation Drawings; G[, [____]]

SD-03 Product Data

Catalog Data; G[, [____]]

SD-04 Samples

Casework Samples; G[, [____]]

Accessories and Hardware; G[, [____]]

Manufacturer's Standard Color Charts; G[, [____]]

SD-07 Certificates

Certificates of Conformance

SD-08 Manufacturer's Instructions

Manufacturer's Instructions

1.4 QUALITY CONTROL

Submit certificates of conformance for the following items, showing conformance with the standards cited in this section:

a. Corrosion-resistant steel

[b. Glass

] c. Adhesives

d. Filler material

e. Fasteners

[f. Service fixtures

] g. Accessories and hardware

1.5 DELIVERY, STORAGE, AND HANDLING

Deliver, handle, and store cabinets in a manner that will prevent damage or deformity. [Provide temporary skids under units weighing more than [_____] kilogram pounds.]

PART 2 PRODUCTS

2.1 SYSTEM DESCRIPTION

Furnish plastic laminate cabinets, factory-fabricated and finished in the

manufacturer's standard sizes and finishes, of the type, design, and configuration indicated. Construct cabinets as specified and meet the requirements of KCMA A161.1. [Submit fabrication drawings for review and approval before commencement of fabrication.] Provide wall and base cabinet assemblies consisting of individual units joined into continuous sections. Provide counters with a watertight sink rim when indicated. Provide removable drawers equipped with position stops to prevent accidental complete withdrawals. Fix or adjust shelves as indicated.

2.2 COMPONENTS

Submit manufacturer's catalog data for the following items:

a. Cabinets

[b. Glass

] c. Adhesives

d. Filler material

e. Fasteners

[f. Service fixtures

] g. Accessories and hardware

h. Plastic laminate

[i. Steel sinks

] j. Countertops

Submit the manufacturer's instructions for plastic cabinet systems, including special provisions required to install equipment components and system packages, and any special notices detailing impedances, hazards and safety precautions, and casework maintenance.

[Provide the manufacturer's cabinets with the standard sizes, type, and design indicated. For both wall and base cabinets, join individual units into continuous sections as indicated.

]2.2.1 Cabinets

Provide new factory-finished kitchen wall and base cabinets with high-pressure decorative laminate (HPDL) countertops [and bathroom vanity cabinets [with HPDL countertops] [to receive combination lavatory-countertops as specified in Section 22 00 00 PLUMBING, GENERAL PURPOSE]]. Provide cabinets that conform to KCMA A161.1 and requirements specified herein, and that bear the "KCMA Certified Cabinet" seal of the Kitchen Cabinet Manufacturers Association. Provide countertops that conform to ANSI/NEMA LD 3 and requirements specified herein.

2.2.2 Miscellaneous Cabinets

****

NOTE: Delete inapplicable paragraphs, or state appropriate options.

****

[2.2.2.1 Combination Sink-and-Base Cabinet

Provide a sink with matching drainboards, made of [corrosion-resistant steel] [porcelain-enamel steel][plastic laminate][solid surface][fiberglass composites]; equipped with a chromium-plated [swinging-spout faucet, chromium-plated water-control valves,] [automatic faucet] and chromium-plated cup strainer. Make joints between sink and drainboard and between drainboard and countertop watertight.

][2.2.2.2 Special-Purpose Cabinets

Provide special-purpose cabinets, such as cabinets for eye-level oven units, countertop range units, and built-in refrigerators, as indicated on the drawings, with the same materials and construction as adjacent cabinets.

]2.3 MATERIALS

****
NOTE: Delete any of the following materials that are not applicable.
****

[Provide corrosion-resistant steel conforming to ASTM A240/A240M, Type [302] [304] [316].

][Provide glass conforming to ASTM C1036, Type I, Class 1, Quality q3, 6 millimeter 1/4 inch thick, for unframed sliding glass doors; and other glass conforming to ASTM C1036, Type II, Class 1, Quality q8, 5 millimeter 7/32 inch thick.

Provide thermosetting urea-resin Type II adhesives for application of plastic laminate, conforming to ASTM D4690 as recommended by the manufacturer of the laminate. Provide adhesive for wood members, conforming to ASTM D4689.

][Provide filler material conforming to FS TT-F-336.
]

****
NOTE: Review ANSI/NEMA LD 3 and insert style, type, grade, class, and finish as required.
****

Provide plastic laminates conforming to ANSI/NEMA LD 3, Style [_____], Type [_____], Grade [_____], Class [_____], Finish [_____].

Provide accessories and hardware conforming to the following requirements, as applicable:

a. Extension drawer slides: ANSI/BHMA A156.9, Type B85071

b. Semiconcealed hinges: ANSI/BHMA A156.9, Type B81201, 40 millimeter 1 1/2 inches

c. Full surface hinges: ANSI/BHMA A156.9, Type B81131, 40 millimeter 1 1/2 inches

d. Knob pulls: ANSI/BHMA A156.9, Type B12132 25 millimeter 1-inch

diameter

e. Bar pulls: ANSI/BHMA A156.9, Type B12012 100 millimeter 4-inch overall length

f. Locks, keying, and keys: As directed

g. Catches: Magnetic, 22 Newton 5-pound pull

h. Sliding door set: Nylon glides, [_____]

Provide fasteners conforming to the following:

a. Screws: ASME B18.6.1, Group, Type and Class as applicable

b. Anchoring devices: FS FF-S-325, Group, Type, and Class as applicable

c. Toggle bolts: FS FF-B-588, Type I, Class A, Style 2

d. Nuts: ASTM F836M ASTM F594, corrosion-resistant steel

e. Bolts: ASTM F3125/F3125M heavy, hexagon head bolts, corrosion-resistant steel

****
NOTE: Sink for inset-type installation is as specified in Section 22 00 00 PLUMBING, GENERAL PURPOSE.
****

[Provide integral corrosion-resistant steel sinks with the following characteristics:

[a. 1.3 millimeter 18-gauge corrosion-resistant steel, integral with corrosion-resistant steel countertop

][b. 1.3 millimeter 18-gauge corrosion-resistant steel, nonintegral, self-rimming

] c. Drain holes in center of bowl

d. Underside coated with 3 millimeter 1/8-inch thick sound deadener

e. Die-form, seamless, raised edges at front and ends

f. Cove the corners to 13 millimeter 1/2-inch radius

g. Strainers and tail pieces

][Provide sound deadening conforming to CID A-A-59295.

][Provide service fixtures conforming to the following requirements:

a. Fixtures conforming to the water conservation policy as stated in the specified Standard Plumbing Codes, Appendix J.

b. Faucets: Splashback-mounted, cast brass, chrome plated, FS WW-P-541

c. Faucets: Deck-mounted, cast brass, chrome plated, FS WW-P-541

d. Cocks for gas, air, vacuum, distilled water, steam, and deionized water cocks: Cast brass, chrome-plated, ground key

e. Drains, strainers, and taps: Brass, chrome-plated, FS WW-P-541

f. Index buttons: Plastic, color codes in accordance with SEFA 7

g. Special items: Nipples and locknuts with each fixture as directed.

]

****

NOTE: Delete any of the following types that are not applicable.

Type I, zinc phosphate

Type II, iron phosphate

Type III, organic-paint, varnish, lacquer

****

[h. Metal pretreatment coatings: [FS TT-C-490, Type I][FS TT-C-490, Type II][FS TT-C-490, Type III]

][i. Enamel: [MPI 10] [MPI 11] [MPI 119], Class 2

]2.3.1 Finish

2.3.1.1 Cabinet Finish

Provide cabinets of a type standard with the manufacturer,with a durable factory-applied finish and in accordance with KCMA A161.1 .

2.3.1.2 Backer Sheets

Provide backer sheets of high pressure plastic laminate conforming to ANSI/NEMA LD 3, with Grade BK20 applied to the underside of all core material.

2.3.2 Color, Texture, and Pattern

****

NOTE: Coordinate editing of color reference sentence(s) with the Government. Generally, Section 09 06 00 SCHEDULES FOR FINISHES or drawing is used when the project is designed by an architect or interior designer. Select a color from the manufacturer's standard colors or from those identified as a manufacturer's color in this specification only when the project is very simple and has minimal finishes.

When the Government directs that color be indicated in the drawings, add a note that states: "Where color is shown as being specific to one manufacturer, an equivalent color by another manufacturer may be submitted for approval. Manufacturers and materials specified are not intended to limit the selection of equal colors from

other manufacturers. The word "color" as used herein includes surface color and pattern."

Before specifying a custom color finish, research to determine if the additional cost and lead time is feasible. Note that a minimum order is often required; this requirement will also affect future orders.

When a manufacturer's name, stock number, pattern, and color are indicated, be certain that the product conforms to this specification, as edited.
****

Provide color [in accordance with Section 09 06 00 SCHEDULES FOR FINISHES.] [as indicated on the drawings.] [as selected from manufacturer's standard colors.] [[____]. The color listed is not intended to limit the selection of equal colors from other manufacturers.]

2.4 ACCESSORIES

Furnish accessories such as utility shelves and racks for [specialized lab equipment][extracts, condiments, and towels; bins for sugar and flour; breadboxes; and trays for cutlery and flatware as indicated.]

Provide corrosion-resistant hardware. Provide a chromium-plated finish or a corrosion-resistant finish as approved. Paint semiconcealed hinges on cabinets where paint finish is required to match the cabinets. Equip doors with [bullet catches] [spring hinges] [magnetic catches]. Provide door and drawer pulls as indicated.

PART 3 EXECUTION

3.1 INSTALLATION

****
NOTE: Install sinks in accordance with the requirements of Section 22 00 00 PLUMBING, GENERAL PURPOSE.
****

Install the casework plumb with countertops level to within 1 millimeter in 3000 millimeter 1/16 inch in 10 feet. Level base cabinets by adjusting leveling screws. Scribe and fit scribe strips to irregularities of adjacent surfaces. Ensure the gap openings do not to exceed 0.63 millimeter 0.025 inch [_____].

[Secure cases permanently to floor and wall construction using 6 millimeter 1/4-inch-diameter masonry anchors, spaced 760 millimeter 30 inches maximum on center, with a minimum of two anchors for each case, where indicated.

] Install fastenings to permit removal and replacement of individual units without affecting the remainder of the installation.

Support wall cases on continuous 1.3 millimeter 18-gauge galvanized-steel hanging brackets. [Secure wall cases in position with screws to blocking, where indicated.][Bolt adjoining cases together. Ensure that joint widths do not exceed0.79 millimeter 1/32 inch, where indicated.] [Provide closer strips, filler strips, and finish moldings as required.] Align doors,

adjust hardware, and clean and wax surfaces.

3.2 FIELD QUALITY CONTROL

Examine casework grounds and supports for adequate anchorage, foreign material, moisture, and unevenness that could prevent casework installation from meeting the requirements specified.

Ensure that [electrical and plumbing]rough-ins for casework are complete. Do not proceed with installation until defects are corrected.

3.3 ADJUSTING AND CLEANING

On completion of cabinet installation, clean surfaces and surrounding area. Remove crating and packing materials from premises. Wipe down surfaces to remove fingerprints and markings and leave in clean condition.

-- End of Section --