MANUFACTURED PLASTIC-LAMINATE-CLAD CASEWORK

**PART 1 GENERAL**

Specifier Note: Edit following list of what section includes for project. Only list the materials directly related to work of this section.

**1.01 SECTION INCLUDES**

A. Plastic-laminate-clad casework.

Specifier Note: Edit following list of related requirements for project. List any other sections with work directly related to work of this section.

**1.02 RELATED REQUIREMENTS**

A. Section 06 40 00 – Architectural Woodwork: Shop-fabricated custom casework.

B. Section 12 36 00 – Countertops.

**1.03 REFERENCE STANDARDS**

A. ANSI 208.1 – Particle Board Standard; 2009.


C. ANSI/NEMA LD-3 – High-Pressure Decorative Laminates (National Electrical Manufacturers Association); 2005.


E. AWMAC (GIS) – Architectural Woodwork Manufacturers Association of Canada (Guarantee and Inspection Services Program); current edition at www.awmac.com/gis.php.


1.04 DEFINITIONS

A. Exposed Portions of Casework: Surfaces visible when doors and drawers are closed, including bottoms of cabinets more than 48 inches above the floor, and visible surfaces in open cabinets or behind glass doors.
   1. Ends of cabinets, including those installed directly against wall of other cabinets.

B. Semi-Exposed Portions of Casework: Surfaces behind opaque doors, such as interiors of cabinets, shelves, dividers, interiors and sides of drawers, and interior faces of doors.
   1. Tops of cabinets 78 inches or more above floor are defined as semi-exposed.

C. Concealed Portions of Casework: Sleepers, wood frames, dust panels, and other surfaces not usually visible after installation.

Specifier Note: Edit following list of submittal requirements and provide only those that pertain to project. Verify section number and title for Administrative Requirements in Division 01.

1.05 SUBMITTALS

A. Refer to Section 01 30 00 – Administrative Requirements, for administrative and procedural requirements.

B. Product Data: Provide data on material characteristics, performance criteria and limitations, installation instructions, and cleaning and maintenance instructions.

C. Shop Drawings: Provide complete detailed and dimensioned drawings combined with shop drawings of cabinets and casework specified in other sections showing fabrication details, edging, sink installation, coving, seams, fastener types and locations, use and type of sealant, and fabrication details for support brackets.

D. Samples: Provide samples of colors as indicated on Drawings; submit [4 x 4 inch (102 x 102mm)] or [12 x 12 inch (300 x 300mm)] samples showing each color and finish.
   1. When colors are not indicated on Drawings, submit manufacturer’s standard color book showing colors of actual material in greater than 1 1/2 inch (36mm) size.
   2. Upon selection of colors, submit samples as indicated above.

E. Test Reports: Chemical resistance testing, showing compliance with specified requirements.

F. Certificates: Certify that products meet or exceed specified requirements.
   1. Low emitting VOC.
   2. Does not support growth of mold, mildew and bacteria on surface.

G. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

Specifier Note: Review Sustainable Design information and coordinate with LEED or other Division 01 sustainable requirements for project.

H. Sustainable Design Submittals:
   1. Submit invoices and documentation from manufacturer of the amounts of pre-consumer and post-consumer recycled content for products specified.
   2. Submit invoices and documentation showing manufacturing locations and origins of materials for products manufactured and sourced within 500 miles of project location.

I. LEED Submittal: Documentation of recycled content and location of manufacture.
   1. LEED, MR Credit 4 – Recycled Content: Provide documentation for cost of products having recycled content indicating percentages by weight of postconsumer plus 1/2 of the preconsumer content.
   2. LEED, MR Credit 5 – Regional Materials: Provide documentation for cost of materials or products that have been extracted, harvested, or recovered and also manufactured within 500 miles of project site.
If only a portion of the materials or products is extracted, harvested, or recovered and manufactured locally, then only provide percentage by weight for credit value.

1.06 QUALITY ASSURANCE

A. Fabricator Qualifications: [Same fabricator as for cabinets that tops are to be installed.] or [Approved by cabinet manufacturer.]

Specifier Note: Edit following Quality Certification (QC) requirements as required for project. Coordinate with custom or manufactured casework sections. QC is related to 2009 Architectural Woodwork Standards (AWS) when specified for project in accordance with AWI, AWMAC or WI woodworking quality requirements; refer to website; http://www.awinet.org/ArchWoodworkStandards/tabid/498/Default.aspx for additional information.

B. Quality Certification: Provide [AWI (QCP)] [WI (CCP)] [WI (MCP)] or [AWMAC (GIS)] inspection report and quality certification of completed work.
   1. Provide labels or certificates indicating that the work complies with requirements of AWS Grade or Grades specified.
   2. This project has been registered as AWI (QCP) project number [_______].
   3. Prior to delivery to the site provide shop drawings with certification labels.
   4. Provide labels on each product when required by certification program.
   5. Upon completion of installation provide certificate certifying that the installation and products meet the specified requirements.
   6. Arrange and pay for inspections required for certification.
   7. Replace, repair, or rework all work for which certification is refused.

C. Installer Qualifications: Fabricator.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to site in manufacturer’s original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage and Handling: Store materials in clean, dry, interior area in accordance with manufacturer’s instructions. Protect materials from damage during handling and installation.

1.08 AMBIENT CONDITIONS

A. Maintain ambient temperature of 50 to 95 degrees F (10 to 35 degrees C) for 48 hours before, during and for minimum 7 days after installation.

1.09 WARRANTY

A. Manufacturer Warranty: Submit manufacturer’s standard One Year Limited Warranty from the date of purchase against avoidable and unnatural defects in material and workmanship.
   1. Warranty does not cover the following:
      a. Installation of products or any product used or installed in connection with this work.
      b. Defects from mis-use, abuse, accident, alteration, improper care or failure to perform reasonable and necessary maintenance after installation.
   2. Warranty Performance:
      a. Any products covered by this warranty that under normal use and within period of time indicated, prove to be defective, these products will be repaired or replaced by manufacturer without charge.
      b. Manufacturer will not provide, or pay expenses for removal of defective products, installation of repaired or replaced products, or transportation of either repaired, replaced, or defective products.
      c. Others shall provide payment for removal, installation or transportation.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. RYNONE Frameless Casework: North Thomas Avenue, PO Box 128, Sayre, PA 18840.
   1. Phone: (570) 888-5272.
   2. Fax: (570) 888-1175.
Specifier Note: Edit following list of materials and criteria; provide information only directly related to project specified. Select or fill-in appropriate bracketed items [_____] as necessary to satisfy project requirements.

2.02 ASSEMBLIES
A. Quality Standard: See [Section 06 40 00] or [12 30 00].
B. Quality Standard: [Premium Grade] [Custom Grade] or [Economy Grade] in accordance with AWS (AWI/AWMAC/WI).

2.03 MATERIALS
A. Plywood: Exterior grade; PS-1.
B. Particle Board: 45 lb. density, industrial grade; ANSI 208.1, Grade M2 or better.
C. High-Pressure Decorative Laminate (HPDL): General purpose grade, constructed of multiple layers of phenolic resin-saturated kraft paper in combination with a layer of decorative melamine-saturated paper, and fused together under heat and pressure; ANSI/NEMA LD-3.
   1. Thickness, Horizontal Surfaces: [0.048 inch] [0.039].
   2. Thickness, Vertical Surfaces: [0.028 inch] [0.020 inch].
D. Thermally Fused Overlay (Melamine): Low direct pressure, thermally fused paper overlays saturated with reactive resins; ANSI/NEMA LD-3.
   1. Thickness: 0.016 inch.
E. Hardboard: 65 lb. density, interfelted fibers consolidated under heat and pressure; ANSI A135.4.
F. Edge Banding: PVC.
   1. Thickness: [0.018 mm (0.00071 inch)] [0.02 mm (0.0008 inch)] [1 mm (0.04 inch)] [2 mm (0.08 inch)] or [3 mm (0.12 inch)] thick.
   2. Color: [_____] or [As selected by Architect].

Specifier Note: Edit the following components; provide information only directly related to project being specified.

2.04 COMPONENTS
A. Cabinet Construction: Frameless construction with particle board panels.
   1. Sizes: As indicated on Drawings.
B. Base Cabinets:
   1. Cabinet Ends: 5/8 inch thick particleboard clad with HPDL on exposed exterior sides and bonded with thermal fused melamine on interior sides.
      a. Edge Banding: 3 sides to match cabinet exterior.
      b. Joints: Doweled in six positions with 8 mm dowels at each joint and adhered.
      c. Shelf Adjustment: Ends are bored for adjustable shelving.
      d. Finish: Exposed end panels shall be finished to match color and finish of door fronts.
   2. Bottoms: 5/8 inch thick particleboard clad with white melamine on both sides for balanced construction.
      a. Edge Banding: Exposed edges to match cabinet exterior.
   3. Backs: 5/8 inch thick particleboard clad with melamine on interior side only.
      a. Joints: Backs are bored and doweled with 8 mm dowels at each joint and adhered to the sides.
   4. Stretcher Braces: 3/4 inch thick particleboard anchored with 8 mm dowels.
      a. Front Brace: Finished with melamine both sides.
      b. Rear Stretcher: 5/8 inch thick, unfinished particleboard.
   5. Shelves: Adjustable, 3/4 inch thick particleboard clad with melamine on both sides and with front edge banded to match interior finish as indicated.
      a. Shelf: Half depth of base cabinet and adjustable with shelf clips.
   6. Toe Kicks: 5/8 inch thick particleboard, clad with HPDL matching cabinet on exposed exterior side overlaying the front end panel and notched back 1 3/4 inches.
7. Drawers: Drawer box sides and ends are 5/8 inch thick particleboard clad with melamine and doweled at sides and ends with 8 mm dowels and adhered.
   a. Drawer Bottoms: Tempered hardboard.
   b. Drawer Fronts: Adjusted for both height and side to side connections and edge banded.
   c. Drawer Slides: Regular extension drawer slide as indicated.
   a. Edge Banding: Four sides to match cabinet exterior.
   b. Style: [Flush overlay (AWS)] or [Full overlay].


D. Vanity Base Cabinets: Similar to standard base cabinet construction with particle board.

E. Wall Mounted Cabinets:
   1. Cabinet Ends: 5/8 inch thick particleboard clad with HPDL on exposed exterior sides and bonded with thermal fused melamine on interior sides.
   2. Edge Banding: 3 sides to match cabinet exterior.
      a. Joints: Doweled in four positions with 8 mm dowels at each joint and adhered.
      b. Shelf Adjustment: Ends are bored for adjustable shelving.
      c. Finish: Exposed end panels shall be finished to match color and finish of door fronts.
   3. Tops and Bottoms: 3/4 inch thick particleboard clad with white melamine on interior side and HPDL on exposed exterior side of bottoms for balanced construction.
      a. Joints: Doweled in four positions with 8 mm dowels at each joint and adhered.
      b. Edge Banding: Exposed edges to match cabinet exterior.
      c. Provide recessed bottom for lighting rail at bottom of wall cabinet as indicated on Drawings.
   4. Backs: 5/8 inch thick particleboard clad with melamine on interior side only.
      a. Joints: Backs are bored and doweled with 8 mm dowels at each joint and adhered to the sides.
   5. Shelves: Adjustable, 3/4 inch thick particleboard clad with white melamine on both sides and front edge banded to match interior finish as indicated.
      a. Edge Banding: Four sides to match cabinet exterior.
      b. Style: [Flush overlay (AWS)] or [Full overlay].


G. Custom Design: Similar to standard wall and base cabinet construction with [particle board] or [plywood] substrate. Refer to Drawings for dimensions and layout.
   1. Applications:
      a. Store Display.
      b. Workstations.
      c. Cubicle Desk.
      d. Table.
      e. Vanity cabinet.
      f. Sorting cabinet

2.05 HARDWARE
   A. Pulls: [Colored nylon wire-type pulls as follows:] or [As selected by Architect].
      1. Width: [_____] or [3 3/4 inch (96 mm)] wide.
      2. Finish: [_____] [Satin chrome] [Brushed chrome] or [As selected by Architect from manufacturer’s standard line].
      3. Products; Wire Pulls by Decorite Decorative Hardware, an Advanced Affiliates Company (www.advaff.com).
B. Cabinet Locks: Vertically mounted, cam type lock with [90 degree] [180 degree] cam rotation, with 16.5 mm diameter cylinder body to fit lock plug, with 2 keys per lock.
   1. Lock Type and Finish: As selected by Architect.
   2. Cams: [Straight] [Bent with 15/32 inch setback].
   3. Products; CB-095 for 90 Degree Rotation by CompX Timberline (www.compx.com).
   4. Products; CB-195 for 180 Degree Rotation by CompX Timberline (www.compx.com).

C. Catches: Magnetic, color white.

D. Adjustable Shelf Clip: White, 3/4 inch wide plastic clip, with 5 mm support hole, set at 32 mm on center; manufacturers standard.

E. Full-Extension Drawer Slides: Standard cold rolled steel drawer slide with steel ball bearings, non-handed with hold-close detent.
   1. Mounting: Side mount.
   2. Load Capacity: 100 lbs, medium duty.
   3. Width: 12.3 mm (0.48 inch).
   4. Length: As indicated on Drawings.
   5. Finish: [White powder coat] [Zinc] or [Black chromate].
   6. Provide related products necessary for fully assembled system.
   7. Product; Model FR 5000 by Fulterer USA (www.fultererusa.com).

F. Regular-Extension Drawer Slides: Cold rolled steel drawer slide with nylon rollers, self-closing ramp on all four profiles and optional locking feature in front of slide.
   1. Mounting: Bottom mount.
   2. Load Capacity: 75 lbs.
   3. Width: 12 mm (0.47 inch).
   4. Length: As indicated on Drawings.
   5. Finish: Epoxy powder coat.
   7. Provide related products necessary for fully assembled system.
   8. Product; Model FR 1921 by Fulterer USA (www.fultererusa.com).

G. Hinges: Fully concealed type with snap-on assembly, self-closing, opening to 110 degrees, with integrated door overlay and depth adjustment.
   1. Mounting Option: [Full overlay] [Half overlay] or [Inset].
   2. Hinge Version: [Cranking, 0 mm] [Cranking, 9.5 mm] or [Cranking, 15 mm].
   3. Mounting Hole Diameter: 35 mm.
   4. Mounting Hole Depth: 15 mm, plus or minus 2 mm.

Specified Note: Edit following laminate materials; provide information only directly related to project specified.

2.06 LAMINATE MATERIALS

A. High Pressure Decorative Laminate (HPDL): NEMA LD 3, types as recommended for specific applications.

B. Provide specific types as indicated.
   1. Horizontal Surfaces: Horizontal General Purpose (HGS), 0.048 inch nominal thickness, colors as indicated, finish as selected.
   2. Vertical Surfaces: Vertical General Purpose (VGS), 0.028 inch nominal thickness, colors as indicated, finish as selected.
   3. Melamine: Cabinet Liner (CLS), 0.020 inch nominal thickness, colors as indicated, finish as selected.

C. Color: [_____] or [As selected by Architect from manufacturer’s standard range of colors].

D. Finish: [_____] or [As selected by Architect from manufacturer’s standard range of finishes].

E. Manufacturers:
   3. Substitutions: See Section 01 60 00 - Product Requirements.
2.07 FABRICATION
A. Countertops: As specified in Section 12 36 00.
B. Fabricate casework in shop for delivery to site in units easily handled and to permit passage through building openings.
C. Fabricate corners and joints without gaps or inaccessible spaces or areas where dirt or moisture could accumulate.
D. Fabricate each unit to be rigid and not dependent on building structure for rigidity.
E. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
F. Form smooth edges. Form material for countertops, shelves, and drain boards from continuous sheets.
G. Provide cutouts for plumbing fixtures, appliances, and fixtures and fittings. Prime paint contact surfaces of cut edges.
H. When necessary to cut and fit on site, provide materials with ample allowance for cutting.
I. Provide trim for scribing and site cutting.
J. Provide venting of cabinets as required.

Specifer Note: Edit following accessories; provide information only directly related to project being specified.

2.08 ACCESSORIES
A. Countertops: Refer to Section 12 36 00.
B. Bolts, Nuts, Washers and Screws: Of size and type to suit application.
C. Adhesives: As selected by manufacturer.
D. Concealed Joint Fasteners: Threaded steel, of size and type to suit application.

PART 3 EXECUTION

3.01 VERIFICATION OF CONDITIONS
A. Verify that field conditions are acceptable and are ready to receive this work.
B. Verify that related items provided under other sections are properly sized and located.
C. Verify that built-in items are in proper location, and ready for installation of this work.

Specifer Note: Edit installation requirements as required for project. Refer to technical information available on website for additional information.

3.02 INSTALLATION
A. Install casework, components and accessories in accordance with manufacturer’s instructions.
B. Use anchoring devices to suit conditions and substrate materials encountered.
C. Set casework items plumb and square, securely anchored to building structure.
D. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Use filler strips; not additional overlay trim for this purpose.
E. Close ends of units, back splashes, shelves and bases.
F. Interface with Other Work: Provide proper installation of other materials and work as necessary for a complete and properly functioning system.

3.03 ADJUSTING
A. Adjust doors, drawers, hardware, fixtures, and other moving or operating parts to function smoothly.
3.04 CLEANING
   A. Remove adhesives, sealants and other stains from surfaces in accordance with manufacturer’s instructions.
   B. Clean casework prior to date of Substantial Completion.

3.05 PROTECTION
   A. Protect casework from damage during construction until date of Substantial Completion, replace damaged work.

END OF SECTION