

SECTION 123400
LAMINATE CLAD CASEWORK

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Fixed modular laminate clad casework and accessory components.
- B. Countertops.

1.02 DEFINITIONS

- A. Identification of casework components and related products by surface visibility.
 - 1. Open Interiors: Any open storage unit without solid door or drawer fronts, units with full glass insert doors and/or acrylic doors, and units with sliding solid doors.
 - 2. Closed Interiors: Any closed storage unit behind solid door or drawer fronts.
 - 3. Semi-Exposed Surfaces: Interior surfaces which are visible, bottoms of wall cabinets and tops of cabinets 72 inches or more above finished floor.
 - 4. Concealed Surfaces: Any surface not visible after installation.

1.08 WARRANTY

- A. All materials and workmanship covered by this section will carry a one (1) year warranty from date of acceptance.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:

- A. Manufacturer:
 - 1. TMI Systems Design Corporation.
 - a. Drawings and specifications are based on manufacturer's literature from TMI SYSTEMS DESIGN CORPORATION, 50 South Third Avenue West, Dickinson, North Dakota, 58601, Phone: 800-456-6716.

2.02 MATERIALS

- A. Core Materials:
 - 1. Particleboard up to 7/8 inch thick: Industrial Grade average 47-pound density particleboard, ANSI A 208.1-2009, M-2 requirements.
 - 2. Particleboard 1 inch thick and thicker: Industrial Grade average 45-pound density particleboard, ANSI A 208.1-2009, M-2 requirements.
 - 3. Medium Density Fiberboard 1/4 inch thick: Average 54-pound density grade, ANSI A208.2-2009 requirements.
- B. Decorative Laminates: GREENGAURD Indoor Air Quality Certified
 - 1. High-pressure decorative laminate VGS (.028), NEMA Test LD 3-2005.
 - 2. High-pressure decorative laminate HGS (.048), NEMA Test LD 3-2005.
 - 4. High-pressure cabinet liner CLS (.020), NEMA Test LD 3-2005.
 - 5. High-pressure backer BKH (.048), (.039), (.028), NEMA Test LD3-2005.
 - 6. Thermally fused melamine TFM laminate, NEMA Test LD 3-2005.
- C. Edging Materials:
 - 1. 1mm PVC banding, machine applied.
 - 2. 3mm PVC banding, machine applied and machine profiled to 1/8 inch radius.
- D. Glass:
 - 1. Glass insert doors: 1/4 inch thick laminated safety glass.
 - 2. Trim glass inserts: Extruded rigid PVC channel and self-locking insert retainer strip. Available in gray, beige, white, and black.

2.03 SPECIALTY ITEMS

- A. Support Members:
 - 1. Countertop support brackets: Epoxy powder coated, 11 gauge steel with integral cleat mount opening and wire management opening.
- B. Computer Keyboard Tray:
 - 1. Articulating, under counter mounted with slide-out mouse pad.

2.04 CABINET HARDWARE

- A. Hinges:
 - 1. Five knuckle, epoxy powder coated, institutional grade, 2-3/4 inch overlay type with hospital tip. 0.095 inch thick. ANSI-BHMA standard A156.9, Grade 1.
 - a. Doors 48 inches and over in height have 3 hinges per door.

- b. Magnetic door catch with maximum 5 pound pull provided, attached with screws and slotted for adjustment.
- B. Pulls:
 - 1. Door and drawer front pulls, are epoxy powder coated metal wire, 96mm spacing on screws. Pull design shall comply with the Americans with Disability Act (ADA).
- C. Drawer Slides:
 - 1. Regular, kneespace and pencil: 100-pound load rated epoxy coated steel, bottom corner mounted with smooth and quiet nylon rollers. Positive stop both directions with self-closing feature. Paper storage, 150-pound load rated epoxy coated steel slides.
 - 2. File: Full extension, 150-pound load rated epoxy coated steel, bottom corner mounted with smooth and quiet nylon rollers. Positive stop both directions with self-closing feature.
- D. Adjustable Shelf Supports:
 - 1. Injection molded transparent polycarbonate friction fit into cabinet end panels and vertical dividers, adjustable on 32mm centers. Each shelf support has 2 integral support pins, 5mm diameter, to interface pre-drilled holes, and to prevent accidental rotation of support. The support automatically adapts to 3/4 inch or 1 inch thick shelving and provides non-tip feature for shelving. Supports may be field fixed if desired. Structural load to 1200 pounds (300 pounds per support) without failure.
- E. Locks:
 - 1. Removable core, disc tumbler, cam style lock with strike.
 - 2. Elbow catch or chain bolt used to secure inactive door on all locked cabinets.
- F. File Suspension System: Extruded molding integral with top of drawer box sides to accept standard hanging file folders.
- G. Mirrors: 1/8 inch thick mirrored acrylic, break and impact resistant.

2.05 FABRICATION:

- A. Fabricate casework, countertops and related products to dimensions, profiles, and details shown.
- B. All casework panel components must go through a supplemental sizing process after cutting, producing a panel precisely finished in size and squareness to within 0.010 inches, ensuring strict dimensional quality and structural integrity in the final fabricated product.
- C. Cabinet Body Construction:
 - 1. Tops and bottoms are glued and doweled to cabinet sides and internal cabinet components such as fixed horizontals, rails and verticals. Minimum 6 dowels each joint for 24 inch deep cabinets and a minimum of 4 dowels each joint for 12 inch deep cabinets.
 - a. Tops, bottoms and sides of all cabinets are particleboard core.
 - 2. Cabinet backs: 1/4 inch thick medium density fiberboard panel fully captured by the cabinet top, bottom and side panels. Finish to match cabinet interior. 3/4 inch x 4 inch particleboard rails will be placed behind the back panel at the top and bottom, and doweled to the sides utilizing 10mm hardwood fluted dowels. A third intermediate rail will be included on all cabinets taller than 56 inches. Utilize hot melt glue to further secure back and increase overall strength.
 - 3. Fixed base and tall units have an individual factory-applied base, constructed of 3/4 inch thick plywood. Base is 102mm high unless otherwise indicated on the drawings.
 - 4. Base units, except sink base units: Full sub-top. Sink base units are provided with open top and a stretcher at the front, attached to the sides. Sink back to be split removable access panel.
 - 5. Side panels and vertical dividers shall receive adjustable shelf hardware at 32mm line boring centers. Mount door hinges, drawer slides and pull-out shelves in the line boring for consistent alignment.
 - 6. Exposed and semi exposed edges.
 - a. Edging: 1mm PVC machine applied.
 - 7. Adjustable Shelves in Cabinets
 - a. Core: Particleboard.
 - b. Core Thickness: 3/4 inch up to 36 inches wide, 1 inch over 36 inches wide.
 - c. Edge: White 1mm PVC on Front Edge Only.
 - 8. Interior finish, units with open Interiors:
 - a. Top, bottom, back, horizontal and vertical members, and adjustable shelving faces with TFM Thermally Fused Melamine laminate.
 - 9. Interior finish, units with closed Interiors:
 - a. Top, bottom, back, horizontal and vertical members, and adjustable shelving faces with TFM Thermally Fused Melamine laminate.
 - 10. Cabinet sides:
 - a. Both ends of all cabinet to be faced with high-pressure decorative VGS laminate, balanced with high-pressure cabinet liner (CLS) laminate.
 - 11. Wall unit bottom:

- a. Faced with high-pressure decorative VGS laminate, balanced with high-pressure cabinet liner (CLS) laminate.
 - 12. Balanced construction of all laminated panels is mandatory. Unfinished core stock surfaces, even on concealed surfaces (excluding edges), are not permitted.
 - D. Drawers:
 - 1. Sides, back and sub front: Minimum 1/2 inch thick particleboard, laminated with thermally fused melamine doweled and glued into sides. Top edge banded with 1mm PVC.
 - 2. Drawer bottom: Minimum 1/2 inch thick particleboard laminated with thermally fused melamine, screwed directly to the bottom edges of drawer box.
 - E. Door/Drawer Fronts:
 - 1. Core: 3/4 inch thick particleboard.
 - 2. High-pressure decorative VGS laminate exterior, balanced with high-pressure cabinet liner CLS.
 - 3. Edges: 3mm PVC, machine applied, external edges and outside corners machine profiled to 1/8 inch radius.
- 2.06 DECORATIVE LAMINATE COUNTERTOPS:
- A. Core:
 - 1. All countertops: 1 inch thick ANSI A208.1-1993 M-2 particleboard.
 - B. Surface: High-pressure decorative HGS/HGP laminate with balanced backer sheeting.
 - C. Edges, including applied backsplash: 3mm PVC, exposed edges and corners machine profiled to 1/8 inch radius.

PART 3- EXECUTION

- 3.01 INSPECTION:
- A. The casework contractor must examine the job site and the conditions under which the work under this section is to be performed, and notify the building owner in writing of unsatisfactory conditions. Do not proceed with work under this Section until satisfactory conditions have been corrected in a manner acceptable to the installer.
- 3.02 INSTALLATION:
- A. Erect casework, plumb, level, true and straight with no distortions. Shim as required. Where laminate clad casework abuts other finished work, scribe and cut to accurate fit.
 - B. Adjust casework and hardware so that doors and drawers operate smoothly without warp or bind.
 - C. Repair minor damage per plastic laminate manufacturer's recommendations.
- 3.03 CLEANING:
- A. Remove and dispose of all packing materials and related construction debris.
 - B. Clean cabinets inside and out. Wipe off fingerprints, pencil marks, and surface soil etc., in preparation for final cleaning by the building owner.
- 3.04 COLOR SELECTION:
- A. Laminate Color Selection:
 - 1. Select from the full range of standard Wilsonart® stock color charts.
 - 2. Thermally fused melamine laminate matched to White color.
 - B. Hardware Color Selection:
 - 1. 5 Knuckle Hinges and Pulls: Select from your choice of epoxy powder coating stock colors matched to White, Beige, Gray, Black and Chrome.
 - C. PVC Edge Banding Color Selection:
 - 1. 3mm PVC: Select from the TMI Vendor Stock PVC Program, including over 110 pattern, woodgrain and solid colors matched to Wilsonart and Formica laminates.
 - 2. 1mm PVC: Select from the TMI Vendor Stock PVC Program, including over 110 pattern, woodgrain and solid colors matched to Wilsonart and Formica laminates.

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END OF SECTION