

PART 1 - GENERAL

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| 1.1 RELATED
SECTIONS | <hr/> | .1 Section 06 47 00 - Plastic Laminate Finishing |
| | | .2 Section 07 92 10 - Joint Sealing. |
| | | .3 Section 08 70 05 - Cabinet and Miscellaneous Hardware. |
| 1.2 REFERENCES | <hr/> | .1 American National Standards Institute (ANSI) |
| | | .1 ANSI/NPA A208.1-09, Particleboard. |
| | | .2 ANSI A208.2-09, Medium Density Fiberboard (MDF) for Interior Applications. |
| | | .2 American Society for Testing and Materials International (ASTM) |
| | | .1 ASTM E 1333-10, Standard Test Method for Determining Formaldehyde Concentrations in Air and Emission Rates From Wood Products Using a Large Chamber. |
| | | .2 ASTM D 2832-92(R201), Standard Guide for Determining Volatile and Nonvolatile Content of Paint and Related Coatings. |
| | | .3 ASTM D 5116-10, Standard Guide For Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products. |
| | | .3 Architectural Woodwork Manufacturers Association of Canada (AWMAC) and Architectural Woodwork Institute (AWI) |
| | | .1 Architectural Woodwork Quality Standards Illustrated, 8th edition, Version 1.0 (2009). |
| | | .4 Canadian General Standards Board (CGSB) |
| | | .1 CAN/CGSB-71.20-M88, Adhesive, Contact, Brushable. |
| | | .5 Canadian Standards Association (CSA International) |
| | | .1 CSA B111-74(R2003), Wire Nails, Spikes and Staples. |
| | | .2 CSA O121-08, Douglas Fir Plywood. |
| | | .3 CSA O141-05 (R2008), Softwood Lumber. |
| | | .4 CSA O151-04, Canadian Softwood Plywood. |
| | | .5 CSA O153-M1980(R2008), Poplar Plywood. |
| | | .6 Forest Stewardship Council (FSC) |
| | | .1 FSC-STC-01-001-2004, FSC Principle and Criteria for Forest Stewardship. |
| | | .7 National Electrical Manufacturers Association (NEMA) |
| | | .1 ANSI/NEMA LD-3-05, High-Pressure Decorative |

Laminates (HDPL).

- .8 National Hardwood Lumber Association (NHLA)
 - .1 Rules for the Measurement and Inspection of Hardwood and Cypress 2011.
- .9 National Lumber Grades Authority (NLGA)
 - .1 Standard Grading Rules for Canadian Lumber 2010.
- .10 South Coast Air Quality Management District (SCAQMD), California State (SCAQMD)
 - .1 SCAQMD Rule 1113-A2011, Architectural Coatings.
 - .2 SCAQMD Rule 1168-A2005, Adhesives and Sealants Applications.

1.3 SUBMITTALS

- .1 Provide Submittal submissions: in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Provide shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
 - .1 Indicate details of construction, profiles, jointing, fastening and other related details.
 - .1 Scales: profiles full size, details half full size.
 - .2 Indicate materials, thicknesses, finishes and hardware.
 - .3 Indicate locations of service outlets in casework, typical and special installation conditions, and connections, attachments, anchorage and location of exposed fastenings.
- .3 Provide samples in accordance with Section 01 33 00 - Submittal Procedures.
 - .1 Provide duplicate colour samples of laminated plastic for colour selection.
 - .2 Provide duplicate samples of laminated plastic joints, edging, cutouts and postformed profiles.
- .4 Quality assurance submittals:
 - .1 Manufacturer's Instructions: manufacturer's installation instructions.

1.4 QUALITY ASSURANCE

- .1 Lumber by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board.
- .2 Plywood, particleboard, OSB and wood based composite panels in accordance with CSA and ANSI standards.
- .3 Sustainable Requirements:
- .4 Delivery, Storage, and Handling:
 - .1 Deliver, handle, store and protect materials of this section in accordance with Section 01 61 00 - Common Product Requirements.
 - .1 Protect millwork against dampness and damage during and after delivery.

- .2 Store millwork in ventilated areas, protected from extreme changes of temperature or humidity.
- .2 Waste Management and Disposal:
 - .1 Separate waste materials for reuse and recycling

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Softwood lumber: unless specified otherwise, S4S, moisture content 15% or less in accordance with following standards:
 - .1 CSA 0141.
 - .2 NLGA Standard Grading Rules for Canadian Lumber.
 - .3 AWMAC premium grade, moisture content as specified.
- .2 Machine stress-rated lumber is acceptable for all purposes.
- .3 The manufacturing process must adhere to Lifecycle Assessment (LCA) Standards as per ISO 14040/14041 LCA Standards, CSA Z760 94 Life Cycle Assessment.
- .4 Hardwood lumber: moisture content 15% or less in accordance with following standards:
 - .1 National Hardwood Lumber Association (NHLA).
 - .2 AWMAC premium grade, moisture content as specified.
- .5 Douglas fir plywood (DFP): to CSA 0121, standard construction.
 - .1 Urea-formaldehyde free.
- .6 Canadian softwood plywood (CSP): to CSA 0151, standard construction.
 - .1 Urea-formaldehyde free.
- .7 Hardwood plywood: to ANSI/HPVA HP-1.
 - .1 Urea-formaldehyde free.
- .8 Poplar plywood (PP): to CSA 0153, standard construction.
 - .1 Urea-formaldehyde free.
- .9 Interior mat-formed wood particleboard: to ANSI A208.1.
 - .1 Urea-formaldehyde free.
- .10 Birch plywood: to AWMAC Paint Grade.
 - .1 Urea-formaldehyde free.
- .11 MDF (medium density fibreboard) core: to ANSI A208.2,

density 769 kg/m².

.1 Medium density fibreboard must:

.1 Meet the performance requirements of ANSI A208.2.

.2 Urea-formaldehyde free.

.12 Laminated plastic for flatwork: to NEMA LD3, Grade VGL, Type LD, 1.2 mm thick; based on printed pattern, colour range with satin textured finish.

.13 Laminated plastic backing sheet: Grade BK, Type LD not less than 0.5 mm thick or same thickness and colour as face laminate.

.14 Thermofused Melamine: to NEMA LD3 Grade VGL.

.1 High wear resistant thermofused melamine: equal or exceed 400 cycles (Minimum standard for HPL abrasion test).

.15 Nails and staples: to CSA B111.

.16 Wood screws: copper brass stainless steel steel plain, type and size to suit application.

.17 Splines: wood.

.18 Sealant: in accordance with Section 07 92 00 - Joint Sealants SCAQMD Rule 1168 - Adhesives and Sealants Applications.

.19 Laminated plastic adhesive:

.1 Adhesive: contact adhesive to CAN/CGSB-71.20.

.1 Maximum VOC limit SCAQMD Rule 1168, Adhesives and Sealants Applications 250 g/l.

.2 Adhesives urea-formaldehyde free.

2.2 MANUFACTURED UNITS

.1 Casework:

.1 Fabricate caseworks to AWMAC premium quality grade.

.2 Furring, blocking, nailing strips, grounds and rough bucks and sleepers.

.1 S2S is acceptable.

.2 Board sizes: "standard" or better grade.

.3 Dimension sizes: "standard" light framing or better grade.

.4 Urea-formaldehyde free.

.3 Case bodies (ends, divisions and bottoms).

.1 Hardwood plywood:

.1 Thickness: as indicated.

.2 Number of plies: 3.

.3 Face veneer: plastic laminate.

.4 Core: Poplar plywood.

.5 Bond: Type II.

.6 Sanding: no sanding.

.7 Grain direction: vertical.

2.3 FABRICATION

- .1 Set nails and countersink screws apply stained wood filler to indentations, sand smooth and leave ready to receive finish.
- .2 Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures.
- .3 Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings.
- .4 Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.
- .5 Ensure adjacent parts of continuous laminate work match in colour and pattern.
- .6 Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Ensure core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 2400 3000 mm. Keep joints 600 mm from sink cutouts.
- .7 Form shaped profiles and bends as indicated, using postforming grade laminate to laminate manufacturer's instructions.
- .8 Use straight self-edging laminate strip for flatwork to cover exposed edge of core material. Chamfer exposed edges uniformly at approximately 20 degrees. Do not mitre laminate edges.
- .9 Apply laminate backing sheet to reverse side of core of plastic laminate work.
- .10 Apply laminated plastic liner sheet to interior of cabinetry where indicated.

2.4 FINISHING

- .1 SCAQMD Rule 1113 - Architectural Coatings.

PART 3 - EXECUTION

3.1 INSTALLATION

- .1 Do architectural woodwork to Quality Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC), except where specified otherwise.
- .2 Install prefinished millwork at locations shown on drawings. Position accurately, level, plumb straight.

- .3 Fasten and anchor millwork securely. Provide heavy duty fixture attachments for wall mounted cabinets.
- .4 Use draw bolts in countertop joints.
- .5 Scribe and cut as required to fit abutting walls and to fit properly into recesses and to accommodate piping, columns, fixtures, outlets or other projecting, intersecting or penetrating objects.
- .6 At junction of plastic laminate counter back splash and adjacent wall finish, apply small bead of sealant.
- .7 Apply water resistant building paper over wood framing members in contact with masonry or cementitious construction.
- .8 Fit hardware accurately and securely in accordance with manufacturer's written instructions.

3.2 CLEANING

- .1 Clean millwork and cabinet work, inside cupboards and drawers and outside surfaces.
- .2 Remove excess glue from surfaces.

3.3 PROTECTION

- .1 Protect millwork and cabinet work from damage until final inspection.

3.4 SCHEDULES

- .1 Refer to drawings.

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Section 06 40 00 - Architectural Woodwork.

1.2 REFERENCES

- .1 American National Standards Institute (ANSI)
 - .1 ANSI 208.1-09, Particleboard.
- .2 American Society for Testing and Materials International, (ASTM)
 - .1 ASTM D 2832-92(R2011), Standard Guide for Determining Volatile and Nonvolatile Content of Paint and Related Coatings.
 - .2 ASTM D 2369-10e1, Standard Test Method of Volatile Content of Coatings.
- .3 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-71.20-M88, Adhesive, Contact, Brushable.
- .4 Canadian Standards Association (CSA International)
 - .1 CSA O112-10-08, Evaluation of Adhesives for Structural Wood Products (Limited Moisture Exposure).
 - .2 CSA O121-08, Douglas Fir Plywood.
 - .3 CSA O151-09, Canadian Softwood Plywood.
 - .4 CSA O153-M1980(R2008), Poplar Plywood.
- .5 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .6 National Electrical Manufacturers Association (NEMA)
 - .1 ANSI/NEMA LD-3-05, High Pressure Decorative Laminates (HDPL).

1.3 SUBMITTALS

- .1 Product Data:
 - .1 Submit manufacturer's printed product literature, specifications and data sheet in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Submit two copies of WHMIS MSDS - Material Safety Data Sheets in accordance with Section 01 33 00 - Submittal Procedures. Indicate VOC's for adhesives, solvents and cleaners.
- .2 Samples:
 - .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Submit duplicate samples of joints, edging, cutouts and postformed profiles.

1.4 QUALITY
ASSURANCE

- .3 Manufacturer's Instructions:
 - .1 Submit manufacturer's installation instructions.
- .4 Closeout Submittals:
 - .1 Provide maintenance data for laminate work for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.
- .1 Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

1.5 DELIVERY,
STORAGE, AND
HANDLING

- .1 Storage and Protection:
 - .1 Deliver, handle, store and protect materials of this section in accordance with Section 01 61 00 - Common Product Requirements.
 - .2 Maintain relative humidity between 25 and 60% at 22 degrees C during storage and installation.

1.6 WASTE
MANAGEMENT AND
DISPOSAL

- .1 Divert wood cut-offs from landfill by disposal into on-site wood recycling bin.
- .2 Divert reusable materials for reuse at nearest used building materials facility or similar type facility.
- .3 Divert unused caulking, sealants, surface coatings and adhesive materials from landfill through disposal at a special wastes depot.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Laminated plastic for flatwork: to NEMA LD 3.
 - .1 Type: General purpose.
 - .2 Grade: HGS.
 - .3 Size: 1.27 mm thick.
 - .4 Colour: patterned.
 - .5 Pattern: printed pattern.
 - .6 Finish: textured.
- .2 Plywood core: to CSA 0121 solid two sides, 19 mm thick.
- .3 Particleboard core: to ANSI 208.1, sanded faces, of thickness indicated.
- .4 Laminated plastic adhesive: per manufacturer's written recomm. endations.
 - .1 Test for acceptable VOC emissions in accordance with ASTM D 2369 and ASTM D 2832.

.5 Sealer: water resistant sealer or glue acceptable to laminate manufacturer.

.1 Test for acceptable VOC emissions in accordance with ASTM D 2369 and ASTM D 2832.

.6 Draw bolts and splines: as recommended by fabricator.

2.2 FABRICATION

.1 Comply with NEMA LD 3, Annex A.

.2 Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.

.3 Ensure adjacent parts of continuous laminate work match in colour and pattern.

.4 Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Ensure core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 2400 mm. Keep joints 600 mm from sink cutouts.

.5 Form shaped profiles and bends as indicated, using postforming grade laminate to laminate manufacturer's instructions.

.6 Use straight self-edging laminate strip for flatwork to cover exposed edge of core material. Chamfer exposed edges uniformly at approximately 20 degrees. Do not mitre laminate edges.

.7 Apply laminate backing sheet to reverse side of core of plastic laminate work.

.8 Apply laminated plastic liner sheet to interior of cabinetry where indicated.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

.1 Compliance: Comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

3.2 INSTALLATION

.1 Install work plumb, true and square, neatly scribed to adjoining surfaces.

.2 Make allowances around perimeter where fixed objects pass through or project into laminated plastic work to permit normal movement without restriction.

.3 Use draw bolts and splines in countertop joints. Maximum spacing 450 mm on centre, 75 mm from edge. Make

flush hairline joints.

- .4 Provide cutouts for inserts, grilles, appliances, outlet boxes and other penetrations. Round internal corners, chamfer edges and seal exposed core.
- .5 At junction of laminated plastic counter back splash and adjacent wall finish, apply small bead of sealant.
- .6 Site apply laminated plastic to units as indicated. Adhere laminated plastic over entire surface. Make corners with hairline joints. Use full sized laminate sheets. Make joints only where indicated approved. Slightly bevel arises.
- .7 For site application, offset joints in plastic laminate facing from joints in core.

3.3 PROTECTION

- .1 Cover finished laminated plastic wood metallic veneered surfaces with heavy kraft paper or put in cartons during shipment. Protect installed laminated surfaces by approved means. Do not remove until immediately before final inspection.

3.4 CLEANING

- .1 Perform cleaning after installation to remove construction and accumulated environmental dirt.
- .2 Perform care and cleaning with NEMA LD 3, Annex B.
- .3 Remove traces of primer, caulking, epoxy and filler materials; clean doors and frames .