



SECTION 06 41 00

ARCHITECTURAL WOOD CASEWORK

(THERMALLY FUSED LAMINATE)

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Thermally fused laminate panels (TFL) used for the following applications:
 - 1. Commercial Fixtures.
 - 2. Office Furniture.
 - 3. Hotel Furniture.
 - 4. Medical Casework Fixtures.
 - 5. Kitchen Cabinetry.
 - 6. Bathroom Cabinetry.
 - 7. Wall Panels.
 - 8. Closet System Components.
 - 9. Toilet Compartments.
 - 10. Shelving.
 - 11. Garage Storage Systems.
 - 12. School Furniture.

1.2 RELATED SECTIONS

- A. Section 06 20 00 - Finish Carpentry.
- B. Section 06 40 13 - Exterior Architectural Woodwork.
- C. Section 06 25 00 - Prefinished Paneling.
- D. Section 06 42 19 - Plastic-Laminate-Faced Wood Paneling.
- E. Section 10 21 00 - Compartments and Cubicles.
- F. Section 10 51 00 - Lockers.
- G. Section 10 55 13 - Central Mail Delivery Boxes.
- H. Section 10 56 13 - Metal Storage Shelving.
- I. Section 12 30 00 - Casework.
- J. Section 12 35 30.13 - Kitchen Casework.

- K. Section 12 50 00 - Furniture.
- L. Section 12 59 00 - Systems Furniture.

1.3 REFERENCES

- A. American National Standards Institute (ANSI):
 - 1. ANSI A208.1 - Particleboard, Mat-Formed Wood.
 - 2. ANSI A208.2 - Medium Density Fiberboard for Interior Use.
- B. ASTM International (ASTM):
 - 1. ASTM D 1037 - Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials.
 - 2. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- C. Architectural Woodwork Institute (AWI):
 - 1. Architectural Woodwork Standards (AWS).
- D. Composite Panel Association (CPA).
 - 1. CPA-4-11- Eco-Certified Composite (ECC) Sustainability Standard.
- E. California Air Resources Board (CARB):
 - 1. CARB ATCM 93120 - California Formaldehyde Regulation (CARB rule).
- F. Forest Stewardship Certification (FSC):
- G. New York Standard for Fire-Rated Panel (MEA):
 - 1. MEA 244- Material and Equipment Acceptance by Department of Buildings, City of New York, NY.
- H. National Electrical Manufacturers Association (NEMA):
 - 1. NEMA LD3 - Laminate Testing.
- I. U.S. Green Building Council (USGBC)
 - 1. LEED - Leadership in Energy and Environment Design

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Manufacturer's printed installation instructions, showing required preparation and installation procedures.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
 - 4. Cleaning and maintenance instructions.
- C. Verification Samples: For each finish product specified, two samples, 3-1/8 x 4-1/8 in (89 x 127 mm) representing manufacturer's product.
- D. Manufacturer's Certification: Materials comply with specified requirements and suitable for intended application.
 - 1. Material Certificates: Thermally Fused Laminate - Particleboard or MDF.
 - a. CARB Compliance: Phase 2 formaldehyde emissions certificate; CA Executive Order for CARB ULEF or NAF Exemption.
 - b. CPA - ECC Certification.
 - c. FSC Certification.

- E. Sustainable Design Submittals - LEED 2009 (NC) or LEED v4 New Construction:
 - 1. Materials and Resources - Recycled Content (LEED 2009, MRc4) (LEED v4, Building product disclosure and optimization - sourcing of raw materials) - TFL particleboard or MDF manufacturer's product data indicating percent of pre-consumer and post-consumer recycled content.
 - 2. Materials and Resources - Regional Materials (LEED 2009, MRc5) (LEED v4, Building product disclosure and optimization) - TFL particleboard or MDF manufacturer's product data indicating harvest source location and location of manufacturing. Location valuation factor.
 - 3. Materials and Resources - Certified Wood (LEED 2009, MRc7) (LEED v4, Building product disclosure and optimization - sourcing of raw materials) - TFL particleboard or MDF manufacturer's product data indicating certification to Forest Stewardship Council. Product must be ordered as FSC Chain of Custody Certified.
 - 4. Indoor Environmental Quality Credit - (LEED 2009, IEQc4.4) (LEED v4, Low-Emitting Materials - Composite Wood Evaluation) - TFL particleboard or MDF manufacturer's product data documenting low formaldehyde emissions that meet the CARB ATCM for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde (NAF) resins.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Thermally fused laminate (TFL) particleboard or MDF panels produced by a manufacturer with documented quality management and environmental management practices in place to ensure compliance with:
 - 1. FSC - Mix Credit certification.
 - 2. CPA - ECC - Eco Certified Composite Panel certification.
 - 3. CARB Air Toxic Control Measure - Third party (TPC-1) certified.
- B. Fabricator and Installer Qualifications: Minimum of two years documented experience in fabricating and installation of TFL panels similar in scope and complexity to this project.
- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship for each type TFL paneling and TFL running trim using manufacturer approved installation methods.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship and appearance are approved by Architect.
 - 3. Subject to approval by Architect, mock-up may be retained as part of finish work.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Deliver materials in manufacturer's original, unopened, undamaged pallets with identification labels intact.
- B. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions in strict compliance with manufacturer's instructions and industry standards.
 - 1. If unloaded outdoors, move and store under shelter as soon as possible. Avoid unloading in inclement weather.
 - 2. Inspect delivered products to verify products are not damaged, soiled or have been exposed to water.
- C. Handling: Protect materials during handling and installation to prevent damage.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
 - 1. Store TFL panels prior to fabrication in same environment for fabrication, 48 hours prior to fabrication.

1.8 WARRANTY

- A. Manufacturer's Warranty: Manufacturer's standard limited warranty for defects in manufacturing.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Acceptable Manufacturer: Roseburg, which is located at: 3660 Gateway St.; Springfield, OR 97477; Toll Free Tel: 800-245-1115; Tel: 541-679-3311 ; Fax: 541-679-2543; Email: [request info \(MarkN@rfpco.com\)](mailto:request info (MarkN@rfpco.com)); Web: www.roseburg.com
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 THERMALLY FUSED LAMINATE PANELS

- A. Basis of Design: Duramine, thermally fused laminate as manufactured and supplied by Roseburg Forest Products Company.
 - 1. Standard core material laminated with Melamine saturated decorative paper layers thermally fused to both core face surfaces with heat and pressure.
 - 2. Textured Finishes:
 - a. Texture for Face: Suede finish.
 - b. Texture for Face: Cambium finish - linear texture.
 - c. Texture for Face: Non-registered cathedral finish.
 - d. Texture for Face: Lower sheen gloss finish.
 - e. Texture for Face: _____.
 - f. Texture for Face: As indicated on drawings.
 - g. Color and Pattern: _____.
 - h. Color and Pattern: As indicated on drawings.
 - i. Color and Pattern: As selected from Roseburg's full range of available selections.
- B. Substrates for Duramine-TFL:
 - 1. Basis of Design: UltraBlend particleboard as manufactured and supplied by Roseburg Forest Products Company.
 - a. Standards Compliance:
 - 1) ANSI Standard A208.1
 - 2) ANSI D 1037- Standard Test Methods for Evaluating the Properties of Wood-based Fiber and Particleboard Materials.
 - 3) ASTM E-84 Class C or 3. Fire resistance.
 - b. Third Party Certification:
 - 1) CARB approval TPC-1 to comply with CCR 93120.2 for formaldehyde emission requirement.
 - c. Recycled Content: 90 percent.
 - d. Thickness Range: 3/8 to 1-1/2 in (9.5 to 38 mm).

- e. FSC Certified UltraBlend particleboard available. Must be specified at time of order placement. (LEED credit supported).
 - f. Physical characteristics:
 - 1) Wear Resistance per NEMA LD3-3.13:
 - a) Solid Colors: 550-700 cycles.
 - b) Prints: 100 cycles.
 - 2) Stain Resistance per NEMA LD3-3.4:
 - a) 1-10 No effect.
 - b) 11-15 Slight - moderate effect (iodine only).
 - 3) Impact Resistance per NEMA LD3-3.8:
 - a) 9 to 15 in (229 to 381 mm).
2. Basis of Design: SkyBlend particleboard as manufactured and supplied by Roseburg Forest Products Company.
- a. Standards Compliance:
 - 1) ANSI standard A208.1
 - 2) ASTM D 1037- Standard Test Methods for Evaluating the Properties of Wood-based Fiber and Particleboard Materials.
 - 3) ASTM E 84, Class C or 3. Fire resistance.
 - b. Third Party Certification:
 - 1) CARB approval TPC-1 to comply with CCR 93120.2 for formaldehyde emission requirement.
 - 2) CPA 4-11: Eco Certified Composite Sustainability Standard.
 - c. Recycled Content: 90 percent.
 - d. Thickness Range: 3/8 to 1-1/2 in (9.5 to 38 mm).
 - e. FSC Certified particleboard available. Must be specified at time of order placement. (LEED credit supported).
 - f. Physical characteristics:
 - 1) Wear Resistance per NEMA LD3-3.13.
 - a) Solid Colors: 550-700 cycles.
 - b) Prints: 100 cycles.
 - 2) Stain Resistance per NEMA LD3-3.4.
 - a) 1-10 No Effect.
 - b) 11-15 slight; moderate effect (iodine only).
 - 3) Impact Resistance per NEMA LD3-3.8.
 - a) 9 to 15 in (229 to 381 mm).
3. Basis of Design: Roseburg Medite FR - Class 1 Flame Retardant (MDF) Medium Density Fiberboard as manufactured and supplied by Roseburg Forest Products Company.
- a. Standards Compliance:
 - 1) ANSI standard A208.2 Grade 130.
 - a) ASTM E-84, Class A or 1. Fire resistance.
 - b) MEA 244. Fire resistance.
 - b. Third Party Certification:
 - 1) CARB NAF Exemption due to synthetic resin system.
 - 2) CARB ATCM 93120 Phase 2 emission requirements.
 - 3) New York City MEA Approval.
 - c. Recycled Content: 82 percent. SCS Certified.
 - d. Thickness Range: 1/4 in (6.35 mm) to 1-1/4 in (31.75 mm).
 - e. FSC Certified Medite FR available. Must be specified at time of order placement. (LEED Credit Supported).
 - f. Physical Characteristics:
 - 1) Wear Resistance per NEMA LD3-3.13.
 - a) Solid Colors: 550 to 700 cycles.
 - b) Prints: 100 cycles.
 - 2) Stain Resistance per NEMA LD3-3.4.
 - a) 1-10 No Effect.

- b) 11-15 Slight - Moderate Effect (Iodine only).
 - 3) Impact Resistance per NEMA LD3-3.8.
 - a) 9 to 15 in (229 to 381 mm).
- 4. Basis of Design: Roseburg Medex - Moisture Resistant (MDF) Medium Density Fiberboard as manufactured and supplied by Roseburg Forest Products Company.
 - a. Standards Compliance:
 - 1) ANSI A208.2 Grade 155. Moisture resistance. MR50.
 - 2) ASTM D1037. Six cycle accelerated aging test for moisture resistance.
 - 3) ASTM E-84, Class C or 3. Fire resistance.
 - b. Third Party Certification:
 - 1) CARB NAF Exemption due to synthetic resin system.
 - 2) CARB ATCM 93120 Phase 2 emission requirements. (LEED credit supported).
 - 3) CPA 4-11: Eco Certified Composite Sustainability Standard.
 - c. Recycled Content: 92 percent. SCS Certified.
 - d. Thickness Range: 1/4 to 1-1/4 in (6 to 32 mm).
 - e. FSC Certified Medex available. Must be specified at time of order placement. (LEED Credit Supported).
 - f. Physical Characteristics:
 - 1) Wear Resistance per NEMA LD3-3.13.
 - a) Solid Colors: 550-700 cycles.
 - b) Prints: 100 cycles.
 - 2) Stain Resistance per NEMA LD3-3.4.
 - a) 1-10 No effect.
 - b) 11-15 Slight - Moderate effect (iodine only).
 - 3) Impact Resistance per NEMA LD3-3.8.
 - a) 15 in (381 mm).

2.3 DECORATIVE EDGE BAND

- A. General Requirements:
 - 1. Material Composition: ABS/PVC extruded plastic.
 - 2. Width: Equal to or greater than panel thickness.
 - 3. Finish: Match TFL Panels.
 - 4. Color and Pattern: Match TFL Color _____.
 - 5. Color and Pattern: Edgeband Supplier _____. Color: _____.
 - 6. Color and Pattern: Specified in Finish Schedule.
 - 7. Color and Pattern: Indicated on Drawings.
 - 8. Color and Pattern: Selected from manufacturer's full range of colors.
- B. Matching Edgebanding Products:
 - 1. Canplast: canplast.com.
 - 2. Dollken Woodtape: woodtape.com.
 - 3. Olon: olon.com.
 - 4. Rehau: rehau.com/us-en/furniture/edgeband.

2.4 FABRICATION

- A. Panels shall be cut, routed and assembled in accordance to manufacturer's fabrication guidelines. Panels shall be assembled with glue and assembly dowels or with plated finish screws.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions to ensure that work can be completed with no adverse effects.

3.2 PREPARATION

- A. Prepare substrates using methods recommended by the manufacturer to achieve the best results for the panels under proper conditions.
- B. Do not proceed with installation until substrates have been fabricated based on recommended methods from the manufacturer. Commencement of installation constitutes acceptance of conditions of substrate.

3.3 INSTALLATION

- A. Comply with AWI AWS fabrication and installation standard as applicable to the project.
- B. Install fabricated TFL panels according to approved architectural drawings, shop drawings and manufacturer's published installation instructions, Shim as required for proper installation.

3.4 CLEANING AND PROTECTION

- A. Clean panels in accordance to manufacturer's published care and maintenance instructions.
- B. Touch up, repair or replace damaged products before completing installation.

END OF SECTION