

SECTION 05 7000 DECORATIVE METALS

This Section specifies "Wilsonart." Decorative Metals" produced by Wilsonart. Decorative Metals are designed for interior vertical cladding and decorative signage applications. Common installations are retail facilities, hotel and office lobbies, theaters, and restaurants. Decorative Metals can enhance casework designs when used as accent banding.

Decorative Metals offer a wide range of high-end design color, tone, texture, and sheen options.

Wilsonart Decorative Metals have attained GREENGUARD Gold Certification from UL Environment for low chemical emissions into indoor air during product usage.

Wilsonart offers a 1 year Commercial Limited Warranty for material defects.

Section Editing: Informational notes will appear as "Editing Note" text boxes throughout this Section. Bracketed bold text will require a selection to be made.

PART 1 - GENERAL

1.01 SECTION INCLUDES

EDITING NOTE: Revise listing to suit Project requirements. Horizontal surface applications are not recommended.

- A. Decorative metal vertical cladding.
- B. Decorative metal signage.
- C. Decorative metal trim elements.

1.02 RELATED REQUIREMENTS

EDITING NOTE: Section listings below are common references and based on the broadly accepted CSI MasterFormat[®] for Section numbers and titles. Revise to suit requirements for particular project.

- A. Section 01 3000 Submittals.
- B. Section 06 1000 Rough Carpentry.
- C. Section 09 2900 Gypsum Board.
- D. Section 06 6116 Solid Surfacing Fabrications.
- E. Section 09 7700 Special Wall Surfaces.
- F. Section 12 3623 Plastic-Laminate-Clad Countertops.
- G. Section 12 3661 Solid Surfacing Countertops.

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1.03 REFERENCES

EDITING NOTE: Revise Reference Standards to suit Project requirements.

A. Reference Standards:

- 1. AAMA 611: Voluntary Specification for Anodized Architectural Aluminum.
- 2. ASTM A 792/A 792M: Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.
- 3. ASTM B 209: Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
- 4. ASTM E 84: Standard Test Method for Surface Burning Characteristics of Building Materials.
- 5. CID A-A-1936A: Adhesive, Contact, Neoprene Rubber.
- 6. NSF/ANSI Standard 51: Food Equipment Materials.
- 7. SCAQMD Rule 1168: Adhesive and Sealant Applications.
- 8. UL 2818: GREENGUARD Certification Program for Chemical Emissions for Building Materials, Finishes and Furnishings.

1.04 SUBMITTALS

A. Submit under provisions of Section 01 3000 - Submittals.

B. Product Data:

- 1. Submit product data for each specified product. Include manufacturer's technical data sheets and published instruction instructions.
- 2. Submit Safety Data Sheets (SDS) for adhesives and sealants.

C. Shop Drawings:

1. Submit fully dimensioned shop drawings showing layouts, joinery, terminating conditions, substrate construction, edge strips, [curved edges,] and cutouts and holes. Include elevations, section details, and large scale details.

D. Samples:

 Submit selection and verification samples for each color, pattern, and finish required.

E. Quality Assurance Submittals:

- 1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties, if required.
- 2. LEED Submittals: Submit applicable LEED documentation for potential credits specified in this Section.
- 3. Warranty: Specimen copy of specified warranty.
- F. Maintenance Data: Submit manufacturer's published maintenance manual with closeout submittals.

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1.05 REGULATORY REQUIREMENTS

- A. Adhesives, Sealants, and Sealant Primers:
 - SCAQMD (South Coast Air Quality Management District) Rule 1168 for VOC content.

1.06 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Fabricator Qualifications: Minimum of three years documented experience in fabricating decorative metals similar in scope and complexity of this Project. Currently certified by the manufacturer as an acceptable fabricator.
 - Installer Qualifications: Minimum of three years documented installation experience for projects similar in scope and complexity to this Project, and currently certified by the manufacturer as an acceptable Installer. [Installer shall be the fabricator].

EDITING NOTE: Following LEED paragraph offers potential credits according to LEED 2009 for Commercial Interiors (LEED-CI). Coordinate with designated LEED AP for credits applicable to Project.

- B. LEED 2009 rating system potential credits for adhesives:
 - 1. LEED-CI IEQ Credit 4.1 Low-Emitting Materials Adhesives and Sealants.
 - 2. LEED-CI IEQ Credit 4.4 Low-Emitting Materials Composite Wood and Agrifiber Products.
- C. Surface Burning Characteristics: Unless otherwise specified, decorative metal fabrications comply with ASTM E 84 for the Class rating indicated under each decorative metal type listed in Part 2 of this Specification Section. The following values apply:
 - 1. Class A-I Rated:
 - a. Flame spread index, 0-25.
 - b. Smoke-developed index, 0-450.
 - Class B-II Rated:
 - a. Flame spread index, 26-75.
 - b. Smoke-developed index, 0-450.
- D. Mock-Ups:

EDITING NOTE: Revise mock-up size and location to suit Project requirements.

- Install at Project site using acceptable products and manufacturer approved installation methods. Obtain Architect's acceptance of color, pattern, finish, fabrication, and installation standards.
- 2. Mock-Up Size: [_____] by [_____].
- 3. Mock-Up Size: Indicated on Drawings.
- 4. Mock-Up Location: [Indicated on Drawings] [As directed by Architect].
- 5. Maintain mock-up during construction for fabrication and installation comparison. If required, remove and legally dispose of mock-up when no longer required.

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6. Incorporation: If permitted by Architect, mock-up may be incorporated into as part of the completed Work.

1.07 DELIVERY, STORAGE, AND HANDLING

A. Storage and Protection: Store materials protected from exposure to harmful weather conditions, at temperature and humidity conditions recommended by manufacturer. Store sheet materials flat on pallets or similar rack-type storage to preclude damage.

1.08 PROJECT CONDITIONS

- A. Field Measurements: Verify actual measurements and openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.
- B. Preconditioning: Acclimatize decorative metals, adhesives, and substrates to receive the work for a minimum of 48 hours prior to fabrication unless a greater time period is required by the substrate material manufacturer. Precondition to occupancy conditions, except maximum temperature not to exceed 75 deg F and relative humidity not to exceed 50 percent.

1.09 WARRANTY

- A. Manufacturer's Limited Warranty: Provide manufacturer's standard 1 Year Commercial Limited Warranty against visual surface defects in sheet materials.
 - 1. Visual defects include, but not limited to: spots; indents; stains; scratches; orange peel; out-of-tolerance sheet flatness.

PART 2 - PRODUCTS

EDITING NOTE: Full Contact Information: Wilsonart, 2501 Wilsonart Drive, Temple, TX 76504. Tel. 254.207.7000, Toll-Free 800.433.3222, Fax 254.207.2384. Websites are: www.wilsonart.com (primary website)
http://sustain.wilsonart.com (sustainable design website)

2.01 MANUFACTURER

A. Basis of Design: Wilsonart.

2.02 Revise to suit project requirements.

- A. Aluminum Sheet: ASTM B 209. Alloy and temper to suit decorative metal applications.
- B. Galvalume[®] Steel Sheet: ASTM A 792/A 792M.
- C. Metal Laminate Sheet: Colored metallic decorative layer pressed over kraft paper core sheets impregnated with phenolic resin.

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2.03 DECORATIVE METAL TYPES

EDITING NOTE: Select metal types required for Project. UL 2818 applicable to all decorative metals specified.

A. Conformance Standards:

- 1. UL 2818:
 - a. GREENGUARD Emission levels in UL 2818, Section 7.1 are applicable for furniture products.
 - b. GREENGUARD Gold Emission levels in UL 2818, Section 7.2 are applicable for building materials, finishes, and furnishings.

EDITING NOTE: Select Type(s) required for Project. Standard metal material width is 48 inches. Available in 96 inch and 120 inch lengths. For radius bends, minimum radius is 3 inches.

B. Type 408, Metal Laminates: Metal laminate sheet.

EDITING NOTE: Select from the following design options.

- 1. Design: [L6441] [L6442] [L6443] [L6444] [L6445] [L6446] [L6447] [L6448] [Specified in SCHEDULE Article of this Section [Indicated on Drawings] [Selected from manufacturer's standard offerings].
 - a. Sheet Thickness: 0.032 inch.
 - b. Sheet Weight: 0.27 lbs. per sq. ft.
 - c. Surface Burning Characteristics: Class A-I rated.

EDITING NOTE: Select from the following color options.

- d. Color: [Brite Brushed Sterling] [Satin Brushed Palladium] [Satin Brushed Penny] [Ribboned Brite Brushed Sterling] [Ribboned Satin Brushed Penny] [Ribboned Satin Brushed Aged Gold] [Ribboned Matte Silver].
- e. Color: Specified in SCHEDULE Article of this Section.
- f. Color: Indicated on Drawings.
- g. Color: Selected from manufacturer's standard offerings.
- 2. Design: L6452.
 - a. Sheet Thickness: 0.032 inch.
 - b. Sheet Weight: 0.29 lbs. per sq. ft.
 - c. Surface Burning Characteristics: Class A-I rated.
 - d. Color: Vinyl Records.
- 3. Design: L6454.
 - a. Sheet Thickness: 0.039 inch.
 - b. Sheet Weight: 0.35 lbs. per sq. ft.
 - c. Surface Burning Characteristics: Class A-I rated.
 - d. Color: Bronze Age.

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- Design: L6455.
 - a. Sheet Thickness: 0.059 inch.
 - b. Sheet Weight: 0.54 lbs. per sq. ft.
 - c. Surface Burning Characteristics: Class B-II rated.
 - d. Color: Hot Tin Roof.
- 5. Design: [L6449] [L6451] [Specified in SCHEDULE Article of this Section [Indicated on Drawings] [Selected from manufacturer's standard offerings].
 - a. Sheet Thickness: 0.035 inch.
 - b. Sheet Weight: 0.27 lbs. per sq. ft.
 - c. Surface Burning Characteristics: Class A-I rated.

EDITING NOTE: Select from the following color options.

- d. Color: [Sequin Brite Brushed Sterling] [Sequin Satin Brushed Palladium].
- e. Color: Specified in SCHEDULE Article of this Section.
- f. Color: Indicated on Drawings.
- g. Color: Selected from manufacturer's standard offerings.
- 6. Design: L6453.
 - a. Sheet Thickness: 0.047 inch.
 - b. Sheet Weight: 0.43 lbs. per sq. ft.
 - c. Surface Burning Characteristics: Class B-II rated.
 - d. Color: Rough Cut.
- C. Type 414, Galvalume[®] Steel: Steel sheet. Clear acrylic top coating, both sides. Protective film one side.
 - 1. Sheet Thickness: 0.019 inch.
 - 2. Sheet Weight: 0.906 lbs. per sq. ft.
 - 3. Finish: Decorative faceted.
 - 4. Color: Crystal Steel.
- D. Type 415, Metro Collection: Anodized aluminum sheet.
 - 1. Sheet Thickness: 0.025 inch.
 - 2. Sheet Weight: 0.353 lbs. per sq. ft.
 - 3. Surface Burning Characteristics: Class A-I rated.
 - 4. Finish Conformance Standard: AAMA 611, AA-M12C22A42/A44, Class I.

EDITING NOTE: Select from one of the following color options.

- 5. Color: [Matte Pewter] [Matte Grey Bronze] [Matte Gunmetal Grey].
- 6. Color: Specified in SCHEDULE Article of this Section.
- 7. Color: Indicated on Drawings.
- 8. Color: Selected from manufacturer's standard offerings.

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EDITING NOTE: The following decorative metal products have an integral phenolic backer and are limited to flat surface (non-formed) applications. None of the products listed below can be used as edge trim or strips. All products can be installed with any Wilsonart® Adhesive.

- E. Type 418, Aluminum: Aluminum sheet (design type as specified herein) bonded to a phenolic backer, and as follows:
 - 1. Type 418/415, Metro Collection: Anodized aluminum sheet bonded to a phenolic backer.
 - a. Application Limitations: For flat surfaces only.
 - b. Sheet Thickness: 0.025 inch.
 - c. Overall Thickness: 0.040 inch.
 - d. Total Weight: 0.484 lbs. per sq. ft.
 - e. Surface Burning Characteristics: Class A-I rated.
 - f. Finish Conformance Standard: AAMA, AA-M12C22A42/A44, Class I.

EDITING NOTE: Select from one of the following color options.

- g. Color: [Matte Pewter] [Matte Grey Bronze] [Matte Gunmetal Grey].
- h. Color: Specified in SCHEDULE Article of this Section.
- i. Color: Indicated on Drawings.
- j. Color: Selected from manufacturer's standard offerings.
- 2. Type 418/419, Color Anodized: Aluminum sheet; color on exposed surface only. Bonded to a phenolic backer.
 - a. Application Limitations: For non-radiused flat surfaces.
 - b. Sheet Thickness: 0.025 inch.
 - c. Overall Thickness: 0.040 inch.
 - d. Total Weight: 0.484 lbs. per sq. ft.
 - e. Surface Burning Characteristics: Class A-I rated.
 - f. Finish Conformance Standard: AAMA 611, AA-M12C22A42/A44, Class I.

EDITING NOTE: Select from one of the following color options.

- g. Color: [Oiled Bronze] [Satin White Bronze] [Satin Brushed Nickel]
 [Matte Natural Aluminum] [Brite Brushed Natural Aluminum] [Satin
 Brushed Natural Aluminum] [Alumasteel] [Satin Brushed Smoke
 Aluminum] [Satin Brushed Gold Aluminum] [Satin Brushed Copper
 Aluminum] [Satin Brushed Black Aluminum] [Satin Brushed Lite
 Bronze Aluminum] [Satin Brushed Medium Bronze Aluminum]
 [Polished Natural Aluminum] [Polished Gold Aluminum].
- h. Color: Specified in SCHEDULE Article of this Section.
- i. Color: Indicated on Drawings.
- j. Color: Selected from manufacturer's standard offerings.

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- F. Type 419, Anodized Aluminum: Color anodized aluminum sheet; color on exposed surface only. Concealed side prepared to facilitate bonding to suitable substrates.
 - 1. Sheet Thickness: 0.025 inch.
 - 2. Sheet Weight: 0.353 lbs. per sq. ft.
 - 3. Surface Burning Characteristics: Class A-I rated.
 - 4. Finish Conformance Standard: AAMA 611, AA-M12C22A42/A44, Class I.
 - 5. Food Service Applications: Complies with NSF/ANSI Standard 51 for splash zones and FDA food contact requirements.

EDITING NOTE: Select from one of the following color options.

- 6. Color: [Oiled Bronze] [Satin White Bronze] [Satin Brushed Nickel] [Matte Natural Aluminum] [Brite Brushed Natural Aluminum] [Satin Brushed Natural Aluminum] [Alumasteel] [Satin Brushed Smoke Aluminum] [Satin Brushed Gold Aluminum] [Satin Brushed Copper Aluminum] [Satin Brushed Black Aluminum] [Satin Brushed Lite Bronze Aluminum] [Satin Brushed Medium Bronze Aluminum] [Polished Natural Aluminum] [Polished Gold Aluminum].
- 7. Color: Specified in SCHEDULE Article of this Section.
- 8. Color: Indicated on Drawings.
- 9. Color: Selected from manufacturer's standard offerings.
- G. Type 480: Self-adhesive decorative metal for resurfacing over suitable existing substrates.
 - Product: Wilsonart® RE-COVER™ Decorative Metals Type 480.
 - 2. Decorative Metal Series: Type 415/419, Metro Collection and Color Anodized.
 - 3. Sheet Thickness: 0.035 inch.
 - 4. Total Weight: 0.402 lbs. per sq. ft.
 - 5. Finish Conformance Standard: AAMA 611, AA-M12C22A42/A44, Class I.

EDITING NOTE: Select from one of the following color options.

- 6. Color: [Matte Pewter] [Matte Grey Bronze] [Matte Gunmetal Grey] [Oiled Bronze] [Satin White Bronze] [Satin Brushed Nickel] [Matte Natural Aluminum] [Brite Brushed Natural Aluminum [Satin Brushed Natural Aluminum] [Alumasteel] [Satin Brushed Smoke Aluminum] [Satin Brushed Gold Aluminum] [Satin Brushed Copper Aluminum] [Satin Brushed Black Aluminum] [Satin Brushed Lite Bronze Aluminum] [Satin Brushed Medium Bronze Aluminum].
- 7. Color: Specified in SCHEDULE Article of this Section.
- 8. Color: Indicated on Drawings.
- 9. Color: Selected from manufacturer's standard offerings.

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2.04 ACCESSORY MATERIALS

EDITING NOTE: Water-based contact adhesives are not acceptable for use with decorative metals except Type 418 with phenolic backer. Consult with manufacturer for recommended products.

EDITING NOTE: Specified bonding adhesives are not compatible with silicone sealant.

- A. Bonding Adhesive: Spray-grade contact adhesive for bonding decorative metal fabrications to substrate. Complies with CID A-A-1936A.
 - 1. Flatwork (Non-Postforming) Product: "Wilsonart® 950/951 Contact Adhesive, Flatwork Spray Grade."
 - 2. Postforming Product: "Wilsonart® 800/801 Contact Adhesive, Postforming Spray Grade."
- B. Low-VOC Bonding Adhesive: Spray-grade contact adhesive for bonding decorative metal fabrications to substrate. Complies with SCAQMD Rule 1168.
 - 1. Flatwork (Non-Postforming) Product: "Wilsonart® 1730/1731 Contact Adhesive, California Compliant Bulk."
- C. Bonding Adhesive Cleaner: Solvent-based adhesive cleaner. For removing residue and overspray resulting from product installation; not for use on decorative metal surfaces.

 Use for Wilsonart 950/951 and Wilsonart 800/801 Contact Adhesives.
 - 1. Product: "Wilsonart® 121 Adhesive Cleaner."
- D. Low-VOC Bonding Adhesive Cleaner: Solvent-based adhesive cleaner. For removing residue and overspray resulting from product installation; not for use on decorative metal surfaces. Use for Wilsonart® 1730/1731 contact adhesives.
 - 1. Product: "Wilsonart® 131 Low VOC Adhesive Cleaner."
- E. Elastomeric Sealant: Mildew-resistant silicone sealant. Complies with ASTM C 920, Type S (single component), Grade NS (nonsag). Acceptable to FDA for installations subject to food contact.
 - 1. Product: Acceptable to decorative metals manufacturer.
 - 2. Color: [Complementary to decorative metals color] [Clear] [As selected from sealant manufacturer's standard offerings].
- F. Construction Adhesive: Decorative metals manufacturer's recommended silicone-based construction adhesive for backsplashes, endsplashes, and other applications according to manufacturer's published fabrication instructions.

EDITING NOTE: Retain following paragraph for resurfacing applications.

G. Accessory Materials for Resurfacing Applications: Provide substrate repair materials and substrate cleaning materials acceptable to manufacturer.

2.05 FABRICATION

A. General: Fabricate components in shop, to greatest extent practicable, in profiles, sizes, and shapes indicated according to approved shop drawings and manufacturer's published fabrication requirements.

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- B. Conduct hemming, bending, roll forming, and similar assembly operations according to manufacturer's published fabrication requirements.
- C. Use only cutting and fabrication tools acceptable to decorative metals manufacturer.
- D. Provide holes and cutouts indicated on approved shop drawings.

PART 3 - EXECUTION

3.01 EXAMINATION

EDITING NOTE: Recommended installation substrates include hardwood-faced plywood, industrial grade particleboard, and Medium or High Density Fiberboard (MDF or HDF). Substrates not recommended for new applications include yellow pine, marine-grade plywood, melamine boards, fire-rated substrates, gypsum board, and concrete. Wilsonart RE-COVER can be bonded to existing melamine boards, stained and painted wood, and other substrates. Refer to the Wilsonart Decorative Metals Fabrication Manual for full commentary on substrates.

- A. Examine substrates and conditions that could adversely affect the work of this Section.
- B. Substrates must be sound, flat, smooth, dry, and free from dust, grease, oil, or other surface contaminants.
- C. Verify substrates provide required fastener holding power and structural strength required to receive decorative metal fabrications.
- D. Verify substrates are compatible with specified adhesives.
- E. Commencement of work will constitute acceptance of substrates and conditions to receive the work.

3.02 INSTALLATION

- A. General: Install decorative metal assemblies plumb, level, and true according to approved shop drawings and manufacturer's published installation instructions.
- B. For balanced panel installation, apply manufacturer's recommended backer sheet to back (unexposed) panel surface.
- Form joints in locations shown on approved shop drawings and acceptable to manufacturer.
- Allow for material expansion and contraction as recommended by manufacturer.
- E. Spray Adhesive Application: Provide a smooth, uniform adhesive spread with a minimum 80 percent coverage on each surface; use only spray equipment approved by decorative metals manufacturer. Apply uniform pressure over 100 percent of the area to be bonded, using approved rollers. Allow to dry according to manufacturer's recommendations.

 Promptly remove excess adhesive from material surfaces with specified adhesive cleaner.

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EDITING NOTE: Retain following paragraph for resurfacing applications.

- F. Resurfacing Applications Using RE-COVER: Prior to installation, and before removing peel sheet that covers decorative metal laminate adhesive, dry fit metal to substrate. After peel sheet is removed, apply uniform bonding pressure (30 to 40 psi minimum) over the entire bonded surface, using an approved roller. RE-COVER metal is NOT repositionable. Any attempts to reposition the metal will result in inadequate bonding.
- G. Do not remove any protective films until completion of installation.

3.03 CLEANING AND PROTECTION

- A. Clean components according to manufacturer's published maintenance instructions.
- B. Do not use cleaning agents containing abrasives, acids, or alkalis.
- Do not use ammoniated detergents or petroleum-based cleaners on non-stainless steel metal surfaces.
- D. <u>Do not clean metal faces with solvents, paint thinner, or adhesive remover.</u>
- E. Protect completed work from damage during remainder of construction period.

3.04 SCHEDULE

EDITING NOTE: Schedule for decorative metal assemblies may be inserted here if not indicated on Drawings or in Finish Schedule.

END OF SECTION 05 7000

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