

**Metal Sales  
Manufacturing Corporation**

This specification data sheet is provided by Metal Sales Manufacturing Corporation as a technical support tool incident to the sale of its Verti-Line Series, Flush Face Series, Soffit Panel and Interior Liner Series metal panels. Contact Metal Sales for more information on these and other products.

Section 07 42 13 - METAL WALL PANELS

**1. PRODUCT NAMES**

Verti-Line Series: T10-A, T10-B, T10-C, T10-D,  
Flush Face Series: TLC-1, TLC-2, TLC-3, TLC-4,  
TLC-9, TLC-10, TL-17C, TL-17D, TL-1222  
Interior Liner Series: TL-19A, TL-20, TL-21 and  
Soffit Panel metal wall panels.

**2. MANUFACTURER**

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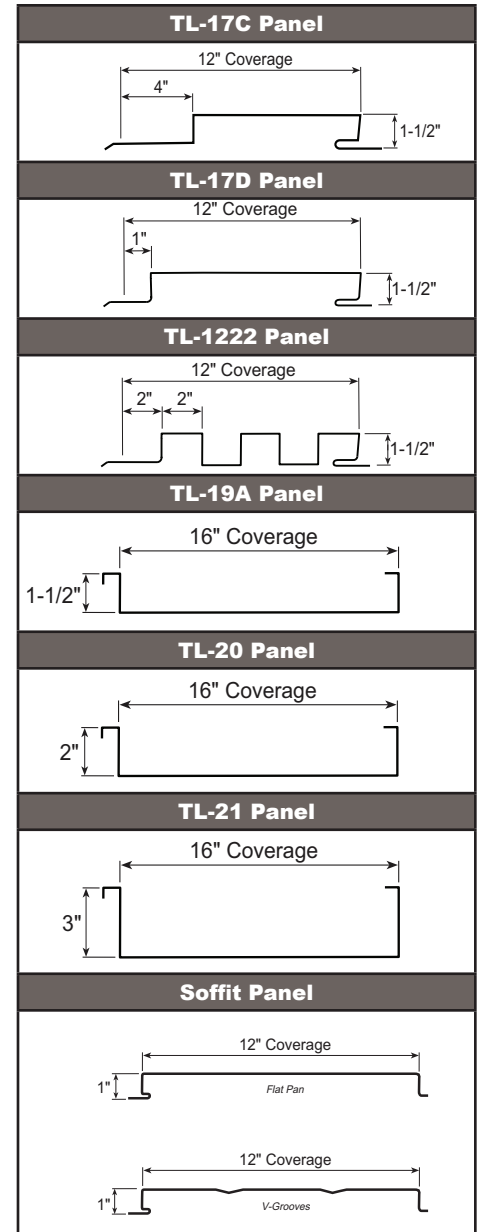
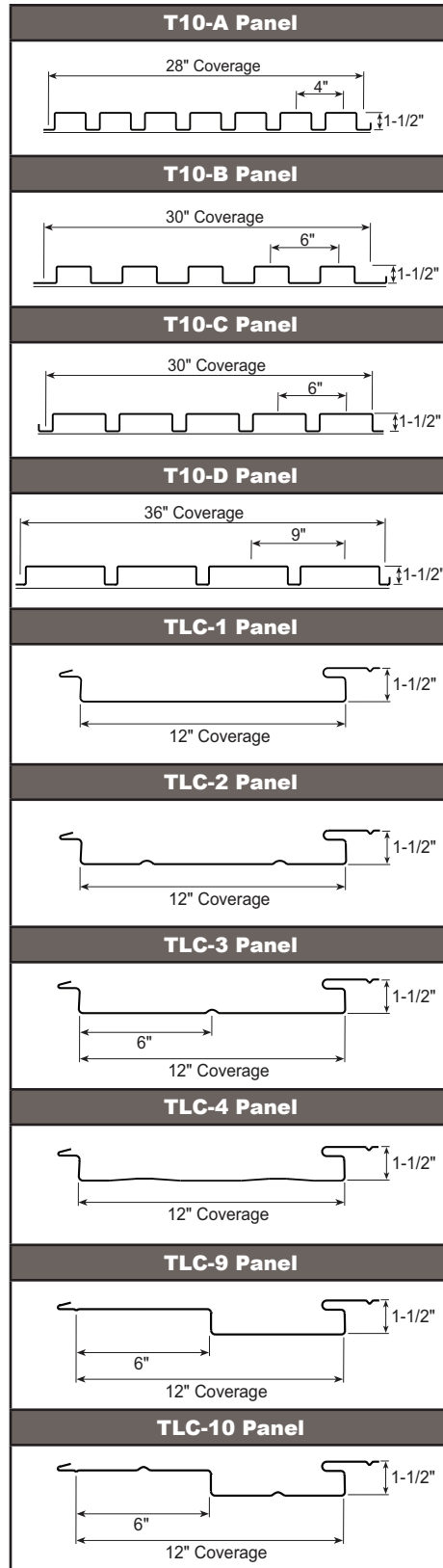
**3. MANUFACTURER DESCRIPTION**

**Basic Use**

For more than 50 years, Metal Sales has earned a reputation as the premier provider of metal building components and accessories. Metal Sales maintains the industry's largest professional sales and service team, supported by 21 branches located throughout the United States and offers a full line of high quality metal roof and wall panels for agricultural, commercial, architectural, industrial and residential projects of every shape and size for both new construction and retrofit applications. Metal Sales is dedicated to leading the metal building component industry, by setting new standards for operating efficiency, product design, active service management and lasting value.

**Manufacturer Memberships and Affiliations**

CRRC - Cool Roof Rating Council  
MCA - Metal Construction Association  
CSI - Construction Specifications Institute  
NRCA - National Roofing Contractors Association  
ILFI - International Living Future Institute



#### 4. TECHNICAL DATA

##### Applicable Standards

ASTM International (ASTM):

- ASTM A 653 – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

- ASTM A 792 – Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process.

- ASTM B 209 – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

- ASTM D 2244 – Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates.

- ASTM D 4214 – Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.

- ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.

- ASTM E 283 – Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen.

- ASTM E 330 – Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.

- ASTM E 331 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.

Underwriters Laboratories (UL):

- UL 263 - Fire Tests of Building Construction and Materials.

##### Approval Organizations:

Florida Building Code 2020

##### Physical Properties:

Test reports are available to design professionals upon request. Note: Industry designation for material thickness is moving away from “gauge” to decimal thickness in inches. Metal Sales recommends use of a minimum thickness requirement of 0.018-inch (0.46-mm) instead of 26 gauge, 0.0236-inch (0.60-mm) instead of 24 gauge, 0.0296-inch (0.75-mm) instead of 22 gauge, 0.0356 inch (0.904 mm) instead of 20 gauge, and 0.0466 inch (1.184 mm) instead of 18 gauge.

##### Technical Properties for Verti-Line Series T10-A, T10-B, T10-C and T10-D Products:

- ▶ Panel Coverage: 28 inches (711.2 mm), 30 inches (762 mm) or 36 inches (914.4 mm).
- ▶ Rib Height: 1-1/2 inches (38.1 mm).



*Grand Canyon University, Phoenix, AZ*

- ▶ Material: Aluminum-zinc alloy-coated steel sheet, ASTM A 792, AZ50 or AZ55 coating designation, structural quality, Grade 50, 0.0236 inch (0.60 mm) or 0.0296 inch (0.75 mm) minimum thickness.

- ▶ Material: Galvanized-coated steel sheet, ASTM A 653, G90 coating designation, structural quality, Grade 33, 0.0356 inch (0.904 mm) and 0.0466 inch (1.184 mm) minimum thickness.

- ▶ Finish: PVDF, Multi-pass Kynar 500, Marblique, Plastisol or Polyester.

- ▶ Configuration: 90-degree vertical box ribs.

- ▶ Panel Fasteners: Exposed, direct-fastened.

- ▶ Perforation: Available option.

- ▶ Color: Contact Metal Sales for information on color availability.

- ▶ Code and Testing Agency Approvals: ICC Evaluation Report: ESR-4633.

##### Technical Properties for Flush Face Series TLC-1, TLC-2, TLC-3, TLC-4, TLC-9, TLC-10, TL-17C, TL-17D and TL-1222 Products:

- ▶ Panel Coverage: 12 inches (304.8 mm)

- ▶ Panel Depth: 1-1/2 inches (38.1 mm).

- ▶ Material: Aluminum-zinc alloy-coated steel sheet, ASTM A 792, AZ50 or AZ55 coating designation, structural quality, Grade 50, 0.0236 inch (0.60 mm) or 0.0296 inch (0.75 mm) minimum thickness.

- ▶ Material: Galvanized-coated steel sheet, ASTM A 653, G90 coating designation, structural quality, Grade 33, 0.0356 inch (0.904 mm) and 0.0466 inch (1.184 mm) minimum thickness.

- ▶ Material: Aluminum sheet, ASTM B 209, 0.032 inch (0.813 mm) minimum thickness.

- ▶ Finish: PVDF, Multi-pass Kynar 500, Marblique, Plastisol or Polyester.

- ▶ Panel Fasteners: Concealed, direct-fastened.

- ▶ Perforation: Available option.

- ▶ Color: Contact Metal Sales for information on color availability.

##### Technical Properties for Metal Interior Liner Series TL-19A, TL-20 and TL-21 Products:

- ▶ Panel Coverage: 16 inches (406.4 mm) or 24 inches (609.6 mm).

- ▶ Rib Height: 1-1/2 inches (38.1 mm), 2 inches (50.8 mm) or 3 inches (76.2 mm).

- ▶ Material: Aluminum-zinc alloy-coated steel sheet, ASTM A 792, AZ50 or AZ55 coating designation, structural quality, Grade 50, 0.0236 inch (0.60 mm) or 0.0296 inch (0.75 mm) minimum thickness.

- ▶ Material: Galvanized-coated steel sheet, ASTM A 653, G90 coating designation, structural quality, Grade 33, 0.0356 inch (0.904 mm) and 0.0466 inch (1.184 mm) minimum thickness.

- ▶ Finish: PVDF, Multi-pass Kynar 500, Marblique, Plastisol, Polyester.

- ▶ Panel Fasteners: Exposed, direct fastened.

- ▶ Panel Tapering: Available option.

- ▶ Perforation: Available option.

- ▶ Color: Contact Metal Sales for information on color availability.

##### Technical Properties for Soffit Panel Product:

- ▶ Panel Coverage: 12 inches (304.8 mm).

- ▶ Panel Depth: 1 inch (25.4 mm).

- ▶ Material: Aluminum-zinc alloy-coated steel sheet, ASTM A 792, AZ50 or AZ55 coating designation, structural quality, Grade 50, 0.018 inch (0.46 mm), 0.0236 inch (0.60 mm) or 0.0296 inch (0.75 mm)] minimum thickness.

► Material: Aluminum sheet, ASTM B 209,  
 ► Finish: PVDF, MS Colorfast45®, Acrylic-Coated Galvalume®.  
 ► Panel Fasteners: Concealed, direct-fastened.  
 ► Surface Configuration: Flat pan or V-Groove.  
 ► Color: Contact Metal Sales for information on color availability.  
 ► Testing and Approvals: Air Infiltration: 0.25 cfm/sq.ft. at 6.24 psf when tested according to ASTM E 283. Water Penetration: No penetration at 12 psf when tested according to ASTM E 331. Uniform Static Air Pressure Difference: Tested according to ASTM E 330. Code Approval: Florida Building Code 2020 FL9482.5.

#### Environmental Considerations

Construction metals generally are readily recyclable at the end of their service life. The raw materials used in manufacture of metal wall panels also come from recycled sources. Pre-consumer and post-consumer recycled content varies. Consult with manufacturer for more information.

#### Fire Performance

Flame-Spread Index: 25 or less (Class A) or 200 (Class C).

### 5. INSTALLATION

#### Handling and Storage

Handle and store product according to Metal Sales recommendations. Deliver materials in original, unopened, undamaged containers with identification labels intact. Store materials above ground, under waterproof covering, protected from exposure to harmful weather conditions and at temperature and humidity conditions recommended by manufacturer. Provide proper ventilation of metal panel system to prevent condensation build-up between each panel and trim or flashing component. Store metal panel products in manufacturer's unopened packaging until ready for installation. Exercise caution in unloading and handling metal panel system to prevent bending, warping, twisting and surface damage.

#### Preparation

Install furring, angles, sub-purlins and other miscellaneous wall panel support members and anchor according to metal wall panel manufacturer's recommendations. Ensure panel support is in-plane. Limit in-plane variance to no more than a total of 1/4 inch (6mm) on 10 feet (3.05 m).

#### Thermal Insulation Installation

Install polyethylene vapor retarder if required. Install board insulation if required, in compliance with installation requirements in Division 07 Section

"Thermal Insulation" requirements. Install blanket insulation if required, in compliance with installation requirements in Division 07 Section "Thermal Insulation."

#### Metal Wall Panel Installation

Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected. Comply with panel manufacturer's installation instructions including but not limited to special techniques, interface with other work and integration of systems. Attach metal wall panels to supports with the proper fastener, fastening pattern and spacing as recommended by panel manufacturer. Comply with installation tolerances as required.

#### Accessory Installation

Install accessories using techniques recommended by manufacturer and which will assure positive anchorage to building and weather tight mounting. Provide for thermal movement. Coordinate installation with flashings and other components. For Flashing and Trim, comply with performance requirements, manufacturer's written installation instructions and the SMACNA "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, and install units to true level. Install work with laps, joints and seams that will be permanently watertight.

#### Field Quality Control

If requested by Owner, provide manufacturer's field service consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

#### Precautions, Cleaning and Protection

Touch-up paint is used to cover and protect unexpected scratches on the paint finish that may occur during installation of panel. Touch-up paint will not weather as well or at the same rate as the original system. Test in an area that will not be noticeable. Metallic paint colors are available at an additional charge. Minor differences in color and appearance are normal and to be expected.

To minimize possible differences in appearance, an entire project should be painted at one time, from one batch of paint, using the same application equipment. Additionally, fabricated panels, flat sheet and flashings should be oriented in the same direction.

After installation remove temporary coverings and protection of adjacent work areas. Repair or replace any installed products that have been damaged. Clean installed panels in accordance with manufacturer's instructions prior to Owner's acceptance. Remove and lawfully dispose of construction debris

from Project site. Protect installed product and finish surfaces from damage during construction.

#### Building Codes

Current data on building code requirements and product compliance may be obtained from Metal Sales technical support specialists. Installation must comply with the requirements of authority having jurisdiction.

### 6. AVAILABILITY AND COST

#### Availability

Metal Sales products are nationally distributed and supported from 21 convenient locations nationwide, including Alaska. Manufacturer has the ability to ship worldwide. Contact manufacturer for information on local availability.

#### Cost

Budget installed cost information may be obtained from a local Metal Sales distributor or directly from the manufacturer.

### 7. WARRANTY

Metal Sales standard PVDF (Fluorocarbon) System Warranty for film integrity, chalk rating and fade rating in which manufacturer agrees to repair or replace panels that show evidence of deterioration within specified warranty period. Deterioration shall include, but is not limited to, color fading of more than 5 Hunter units when tested according to ASTM D 2244, chalking in excess of a No. 8 rating when tested according to ASTM D 4214 or cracking, checking, peeling or failure of paint to adhere to bare metal. Warranty Period for film integrity is 45 years and for chalk and fade rating is 35 years. Metal Sales warranty excludes surface deterioration due to physical damage and exposure to salt air environments.

### 8. MAINTENANCE

No specific maintenance is required for properly installed Metal Sales wall panel products. Periodic panel inspection to verify system integrity, drainage functionality and repair of storm damage is advised.

### 9. TECHNICAL SERVICES

Technical assistance, including more detailed information, product literature, test results, project lists, assistance in preparing project specifications and arrangements for application supervision, is available by contacting Metal Sales.

### 10. FILING SYSTEMS

Additional product information is available from the manufacturer upon request. Metal Sales product information may be found in McGraw-Hill Sweets.