UL Product **iQ**[™]

TGKX.452 - ROOF DECK CONSTRUCTIONS

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

Roof Deck Constructions

See General Information for Roof Deck Constructions

Construction No. 452

June 28, 2016

Uplift — Class 90 Fire Not Investigated

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1. **Metal Roof Deck Panels*** — 24 MSG minimum coated steel. Maximum panel width 16 in., and rib height 2 in. Panels continuous over two or more spans. Endlaps to occur with panels overlapped 6 in. A bead of sealant may be used at panel ends and side joints. Side laps to be tightened and crimped with an electric crimping machine to a minimum 45 degree angle. Crimping process to include the upper portion of panel clips (Item 2).

A & S BUILDING SYSTEMS L P (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

CENTRAL TEXAS METAL ROLLFORMING INC (View Classification) — "SPANLOC 200"

MBCI (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

MCELROY METAL MILL INC (View Classification) — "ABC JSM 200"

MESCO METAL BUILDINGS (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

NCI BUILDING SYSTEMS L P (View Classification) — "BattenLok", "BattenLok HS" or "SuperLok"

PETERSEN ALUMINUM CORP (View Classification) — "Tite-Loc" and "Tite-Loc Plus"

PINNACLE STRUCTURES INC (View Classification) — "PINNACLE BATTENLOK" and "PINNACLE SUPERLOK"

ROLLFAB METAL BUILDING PRODUCTS (View Classification) — "MS-200HP/90" and "MS-200HP/180"

SAN ANTONIO QUALITY METALS (View Classification) — "ML-200"

TAYLOR METAL INC, DBA TAYLOR METAL PRODUCTS (View Classification) - "MS200"

TREMCO INC (View Classification) — "TremLock VP Series II"

UNITED STRUCTURES OF AMERICA INC (View Classification) — "Sure-Lok" or "Supreme-Lok"

2. **Roof Deck Fasteners* (Panel Clips)** — Either of the following: Fixed Clip — One piece clip assembly fabricated from No. 22 MSG minimum steel, 3 in. wide. Floating Clip — two piece assembly with a base fabricated from No. 16 MSG minimum steel, 1 in. wide, and a top fabricated from No. 22 MSG steel, 4 in. wide. Clip spacing 24 in. O.C. maximum. **BUILDING PRODUCTS DEVELOPMENT INC** (View Classification) — "NC3300", "NCF-3300", "NCF-3300-SS" Series Clip

NCI BUILDING SYSTEMS L P (View Classification) — "BattenLok High or Low, Fixed or Floating Clip"; "BattenLok Utility Clip" — "SuperLok High or Low, Fixed or Floating Clip"; "SuperLok Utility Clip"

2A. Roof Deck Fasteners* (Panel Clips) — (Not Shown) Used with "Tite-Loc" or "Tite-Loc Plus" Panels. One piece assembly; 3 in. wide, approximately 2 in. high with two or three guide holes in base. Fabricated from No. 22 MSG coated steel.

PETERSEN ALUMINUM CORP (View Classification) — "Tite-Loc Utility Clip", "Tite-Loc Plus Utility Clip"

One piece assembly; 3 in. wide, approximately 2-3/8 in. or 3 in. high, with three guide holes in base. Fabricated from No. 22 MSG coated steel.

PETERSEN ALUMINUM CORP (View Classification) — "Tite-Loc Low/High Fixed Clip", "Tite-Loc Plus Low/High Fixed Clip"

Two piece assembly; base approximately 2 in. wide, 1-11/16 in. long formed to engage upper tab. Fabricated from No. 16 MSG coated steel. Tab approximately 4-5/16 in. wide; 2-3/8 in. or 2-7/8 in. high, formed to engage base. Fabricated from No. 22 MSG coated steel. Base to have two guide holes.

PETERSEN ALUMINUM CORP (View Classification) — "Tite-Loc Sliding Clip", "Tite-Loc Plus Sliding Clip", "Tite-Loc AR Fixed Clip" and "Tite-Loc AR Sliding Clip", "Tite-Loc Plus AR Fixed Clip" and "Tite-Loc Plus AR Sliding Clip"

3. Fasteners (Screws) — Screws used to attach the panel clips (Item 2) to substructure (Item 4) to be No. 3 Phillips drive. Length must allow a minimum of 1 in. embedment into substructure (Item 4). Two screws per clip. Screws used at endlap (high system only) to be one of the following: 14x1 in. Type AB, Hex Washer Head self-tapping; 14x1 in. Hex Washer Head, self-drilling; 14x1 in. Type AB Phillips Stainless Steel, self-tapping. Five screws per panel in a 1, 3, 4, 4, 3 in. pattern.

Fasteners used to attach Tongue and Groove substructure (Item 4) to wood trusses or joists (Item 8) to be 3 in. long 8d common deformed shank nails. Two nails per board at each support.

4. **Substructure (Tongue and Groove)** — Minimum 1-1/2 in. thick, 2x6, commercial quality wood, continuous over two or more spans.

4A. **Substructure (Bearing Plate)** — (Optional) No. 16 MSG min coated steel, 3-7/8 in. wide by 5 in. long. Used under panel clip (Item 2) when rigid insulation (Item 6) is used .

5. Endlap Back-Up Plate — (High system only) — (Not Shown) Used at panel endlaps, 16 MSG minimum coated steel, width of back-up plate to correspond to width of panel. Provided with two 1 in. wide by 1 in. long tabs for sliding over end of panel.

6. Foamed Plastic — (Rigid Insulation) — (Optional) Minimum thickness 1 in. Density to be a minimum of 2 PCF.

6A Moisture Barrier — (Optional) Any suitable membrane to protect substructure (Item 4).

7. Thermal Spacer — (Optional) (Not Shown) Polystyrene — 3/8, 5/8, or 1 in. nominal thickness, 3 in. wide by 15-7/8 in. long.

8. **Joist** — Size and spacing (maximum 8 ft) to depend on design considerations. Refer to General Information, Roof Deck Construction, Roofing Materials & Systems Directory for Items Not Evaluated.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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