METAL PANELS INC.™

Exposed-Fastener Panel
UL Listing documentation

- Class-4 Impact Rating
- Class-90 Fire Rating
- Tensile Strength: Grade 80/E
- Coil Thickness Range for 29 ga.: 0.0142 – 0.015
- Coil Thickness Range for 26 ga.: 0.0182 – 0.019

The following pages can be found directly on the UL.com website registration database.

Search results

Number of hits: 3 The maximum number of hits returned is 5000.		
You may choose to **Refine Your Search.**		
Company Name	**Category Name**	**Link to File**
METAL PANELS INC	Metal Roof Deck Panels	*TJPV.R21289*
METAL PANELS INC	Roof-covering Materials, Impact Resistance	*TGAM.R21289*
METAL PANELS INC	Roofing Systems	*TGFU.R21289*

Model number information is not published for all product categories. If you require information about a specific model number, please contact Customer Service for further assistance.

TJPV.R21289
Metal Roof Deck Panels

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Metal Roof Deck Panels

See General Information for Metal Roof Deck Panels

METAL PANELS INC R21289
131 S 147TH E AVE
TULSA, OK 74116 USA

Coated steel panels identified as "Strongseam R Panel" for use in Construction No. 560.

Coated steel panels identified as "Strongseam AG Panel" for use in Construction No. 169.

Coated steel panels identified as "VPSL15" for use in Construction No. 370.

Last Updated on 2010-07-30

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TGAM.R21289
Roof-covering Materials, Impact Resistance

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Roof-covering Materials, Impact Resistance

See General Information for Roof-covering Materials, Impact Resistance

METAL PANELS INC R21289
131 S 147TH E AVE
TULSA, OK 74116 USA

Class 4 formed steel panels designated Strongseam Flat Loc, Strongseam AG Panel, VPSL15 or Strongseam R Panel.

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Roofing Systems

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Roofing Systems

See General Information for Roofing Systems

METAL PANELS INC R21289
131 S 147TH E AVE
TULSA, OK 74116 USA

Class A

1. **Deck:** C-15/32 **Incline:** Unlimited **Impact:** 4

Barrier Board: — 1/4 in. min G-P Gypsum DensDeck® or 1/2 in. min UL Classified gypsum board with all joints staggered a min of 6 in. from the plywood joints.
Surfacing: — Strongseam Flat Loc, Strongseam AG, VPSL15 or Strongseam R metal roof deck panels.

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ONLINE CERTIFICATIONS DIRECTORY

TGKX.169
Roof Deck Constructions

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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 Listed or Classified 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 as Classified, Listed, or Recognized.

Roof Deck Constructions

See General Information for Roof Deck Constructions

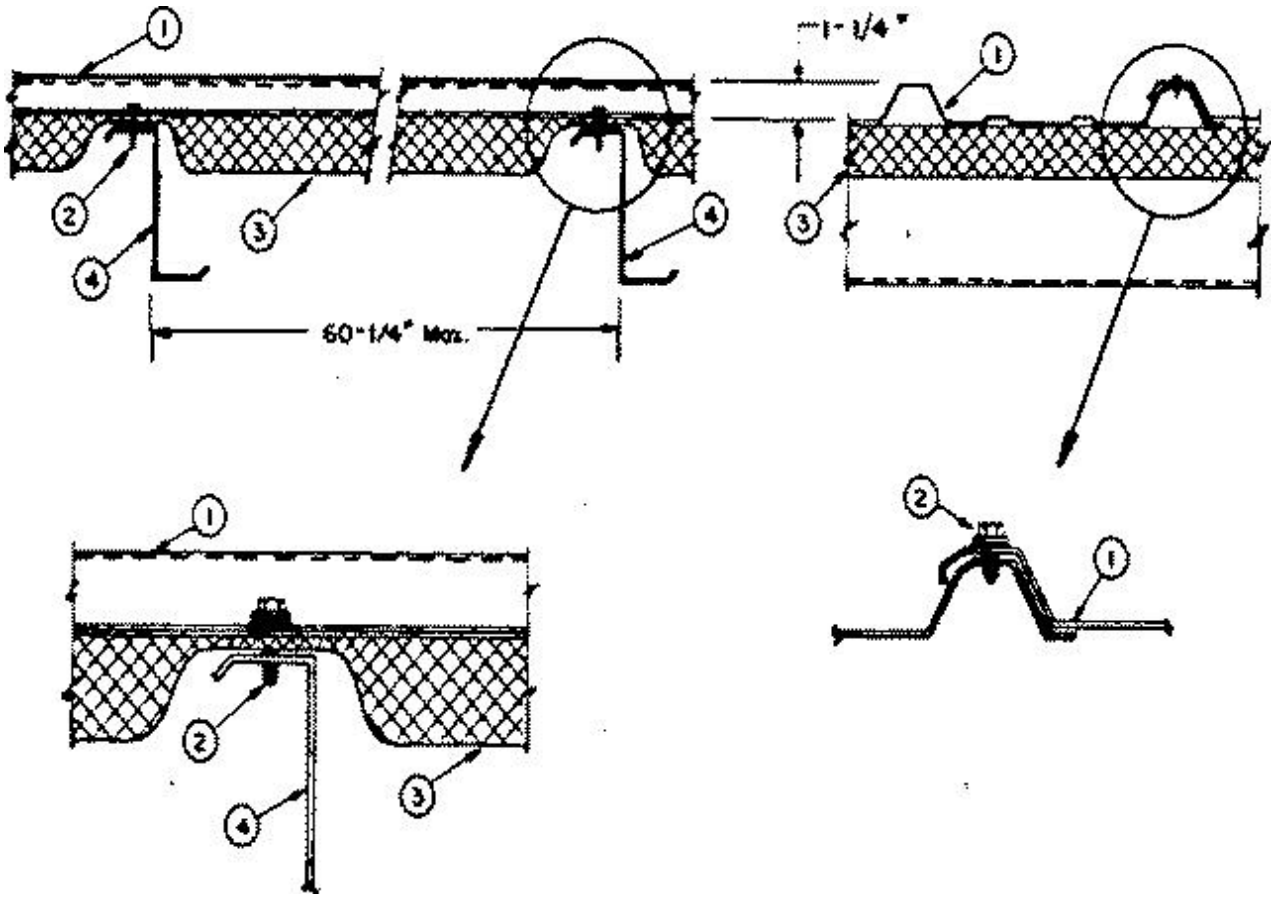
Construction No. 169

December 07, 2009

Uplift

Class 90

Fire Not Investigated



1. **Metal Roof Deck Panels* —** No. 26 MSG or No. 24 MSG min gauge coated steel. Panels continuous over two or more spans. End laps to occur over purlins with panels overlapped 6 in. with lap beginning 1 in. from purlin web and extending across purlin web. A bead of sealant may be used over panel end and side laps.

FABRAL INC (View Classification) — "Mighti-Rib" .

METAL PANELS INC (View Classification) — "Strongseam R Panel"

MID-WEST METAL SUPPLY (View Classification) — "Weather-loc R"

2. **Panel Fasteners —** For panel to purlin connections, fasteners to be No. 12-14 by 1-1/2 in., self-drilling, self-tapping, hex-head, plated steel screws with a separate 1/2 in. OD coated steel washer, and a bonded neoprene sealing washer. Fasteners, used for panel to panel connections, to be No. 12 by 3/4 in. self-drilling, self-tapping, hex-head, plated steel screws with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer.**Spacing —** For panel to purlin fasteners, spacing to be in a 6-6-12-12-6-6 in. pattern with fasteners located 3 in. from the centerline on one side of each interior rib and both sides of each side rib. Spacing at end lap to be the same. Spacing at side laps to be 12 in. on center with a fastener located in line with the purlin fasteners.

3. **Insulation —** (Optional) — Any compressible blanket insulation 4 in. max thickness before compression.

4. **Purlins —** No. 16 MSG min gauge steel (min yield strength 50,000 psi).

5. **Lateral Bracing —** (Not shown) — As required.

Refer to General Information, Roof Deck Construction (Roofing Materials and Systems Directory) for items not evaluated.

*Bearing the UL Classification Mark

Last Updated on 2009-12-07

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TGKX.370
Roof Deck Constructions

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Design / System / Construction / Assembly Usage Disclaimer

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- 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 as Classified, Listed, or Recognized.

Roof Deck Constructions

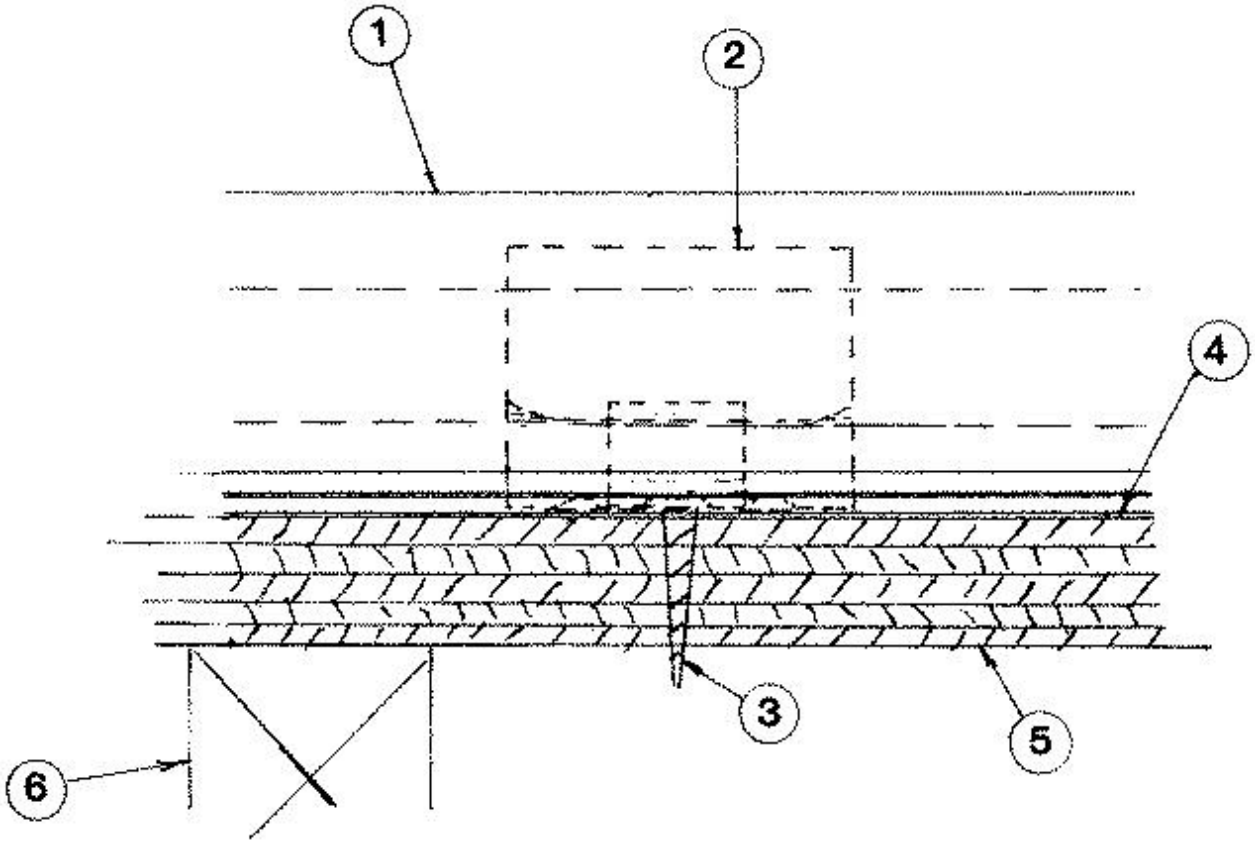
See General Information for Roof Deck Constructions

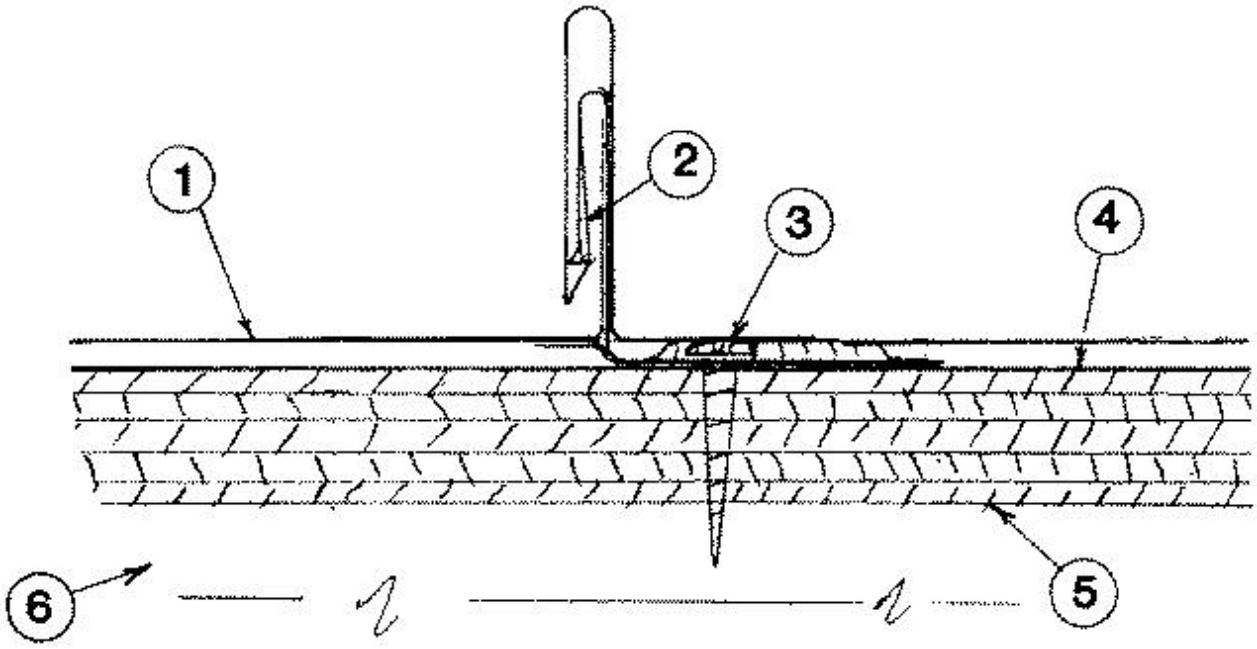
Construction No. 370

August 30, 2010

Uplift - Class 90

Fire Not Investigated





1. **Metal Roof Deck Panels* —** No. 24 MSG min coated steel panels, max 20 in. wide, min 9 in. wide, 1-1/2 in. high at female side rib. Panels continuous over three or more clips with no endlaps. A bead of sealant may be used at panel side joints.

AUSTIN SNAP LOC SUPPLY (View Classification) — "ASL 150"

CONSTRUCTION METAL PRODUCTS INC (View Classification) — "CMP Series 1000"

DREXEL METALS CORP (View Classification) — "DMC 150SL"

FABRAL INC (View Classification) — "High Seam"

METAL PANELS INC (View Classification) — "VPSL15"

NEW TECH MACHINERY CORP (View Classification) — "SS450"

PETERSEN DEAN COMMERCIAL INC (View Classification) — "1.5" Snap Lock"

PREMIUM PANELS INC (View Classification) — "Premium Snap 450" or "P.S. 450"

SPANN ROOFING & SHEET METAL INC (View Classification) — "Spann Series 1000"

2. **Roof Deck Fasteners* (Panel Clips) —** One piece assembly, No. 24 MSG min coated steel, 1-3/4 in. wide, 1-1/4 in. high. Min thickness 0.025 in. (No. 24 MSG). Clips spaced 18 in. OC fastened to plywood deck.

ENGLERT INC (View Classification) — "Series 1000 Interlocking Clip"

FABRAL INC (View Classification) — "High Seam Roof Clip"

3. **Fasteners (Screws) —** Fasteners used to attach panel clips (Item 2) to plywood to be No. 10-12 by 1 in. long pancake head, No. 2 Phillips drive, A-point, coated steel screw. Min one fastener per clip to be used.

4. **Underlayment —** Underlayment used over plywood deck to be type 30 organic felt. Sides overlapped min 2 in., end laps per manufacturer's instructions. Felt nailed to plywood deck with 1

in. long galv steel roofing nails, located per manufacturer's instructions. Nail spacing to be max 12 in. OC at the side lap and max 24 in. OC in interior rows.

5. **Plywood Decking —** Plywood decking to be graded per PS83 specifications, 19/32 in. thick min, exposure 1, APA rated, sq edged. Butt ends not blocked. All butt and side joints to be sealed with a one part urethane caulk sealant troweled smooth.

6. **Supports —** Spaced max of 24 in. OC. Any of the following types may be used to support the plywood decking:

a) 2 by 6 in. min, No. 2 grade or better A.F.P.A. S-P-F Hemlock Fir, Douglas Fir, Southern Pine or equivalent.

b) Wood trusses with a nom 2 by 4 in. upper chord of the same grade as Item a.

c) No. 22 MSG min cold formed coated steel (min yield to be 33,000 psi).

7. **Plywood Fasteners —** Fasteners used to attach the plywood deck to the supports to be as follows:

a) For plywood-to-wood supports No. 8-18 by 1-7/8 in. long bugle-head steel screws with a No. 2 Phillips drive, a "Hi-Low" thread pattern and an "S-Point."

b) For plywood-to-steel supports for a steel thickness less than No. 20 MSG, No. 7-19 by 1-1/4 in. long bugle-head steel screws with a No. 2 Phillips head drive "Hi-Low" threads and an "S-Point." For a steel thickness greater than No. 20 MSG to No. 16 MSG, No. 6-20 by 1-1/4 in. long bugle-head steel screws with a No. 2 Phillips drive and an S12 (TEKS/3)® point.

Spacing: Fastener spacing for all fastener types to be 6 in. OC at the plywood butt edges and 12 in. OC in the interior.

Refer to General Information, Roof Deck Construction (Roofing Materials & Systems Directory) for items not evaluated.

*Bearing the UL Classification Mark

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Roof Deck Constructions

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Roof Deck Constructions

Guide Information for Roofing Materials and Systems

Roof deck constructions illustrated and described in this category are identified by a construction number and evaluated as to the spread of fire on the underside and/or resistance to uplift forces.

FIRE CLASSIFIED

Fire Classified Constructions are evaluated by either the large-scale fire test, or other test procedures having fire exposure conditions related to the large-scale fire test, described in the Standard for Fire Test of Roof Deck Constructions, ANSI/UL 1256.

These Fire-Classifications are not related to Fire ratings under either the Surface Burning Characteristics or the Fire Resistance Classification. The Surface Burning Characteristics is a comparative evaluation of materials (occasionally with facings or backing) with respect to flame spread and smoke developed. The Fire Resistance Classification is the time rating of an assembly with respect to resistance to flame passage, heat transfer and maintenance of structural integrity.

Roof deck constructions which are Fire-Classified consist of assemblies of materials as illustrated and described in this category, classified on the basis of specific requirements for maximum flame spread on the underside of the assembly within definite time limits. These constructions differ from materials classified with respect to Surface Burning Characteristics in that in the latter, materials are assigned comparative numerical values. They also differ from assemblies classified with respect to Fire Resistance, since temperature transmission through roof deck constructions and structural performance under load are not measured nor are time ratings assigned.

A fire investigation of a roof deck construction primarily determines whether the contribution to an igniting fire by any or all of the materials in the assembly is at a sufficient rate to cause propagation of flame on the underside, in excess of the established limits.

As indicated in individual Classifications, specific materials have been supplementally fire tested in accordance with the requirements of the indicated National Codes and Standards.

Authorities having jurisdiction are to be consulted as to which type of roof deck construction is acceptable for specific locations before installation.

UPLIFT RESISTANCE CLASSIFIED

Roof Deck Constructions Classified for Uplift Resistance have been investigated for damageability from both external and internal pressures on the deck associated with high velocity winds. Uplift Classifications are derived from tests conducted in accordance with the Standard for "Tests For Uplift Resistance of Roof Assemblies" , UL 580. The UL 580 test method subjects a 10 ft by 10 ft test sample to various static and oscillating air pressures to index performance under uplift loads imposed on roof decks.

The magnitude of the wind velocity across a roof deck and the resulting uplift pressures on a roof deck are dependent upon many factors such as wind gusts, the shape of the roof deck, edge configuration and the landscape surrounding the roof deck installation. A method to calculate the uplift pressures on roof decks is contained in the American Society of Civil Engineers (ASCE) Standard 7-95, Minimum Design Loads for Buildings and Other Structures.

The nominal static uplift pressure, the oscillating uplift pressures and the maximum static uplift pressure for each Class are:

Class	Nom Static Uplift Pressure psf	Range of Oscillating Pressure psf	Max Static Uplift Pressure psf
15	15	11 to 21	23
30	30	22 to 42	45
60	60	44 to 83	75
90	90	66 to 90	105

The static pressures are maintained for a 5 min period and the oscillating pressures are applied at a 10 plus or minus 2 s frequency and are maintained for a 60 min period for each Class. An assembly rated Class 60 has successfully withstood pressures imposed during Class 30 and Class 60 tests. An assembly rated Class 90 has successfully withstood pressures imposed during Class 30, Class 60 and Class 90 tests.

The test method provides a comparative measure of uplift resistance of roof deck constructions. The test evaluates the roof deck or roof deck assembly and its attachment to supports as well as the attachment of the roof covering, if used. **For uplift resistance related exclusively to the securement of the roof covering to a specified type of roof deck see Classifications under Roofing Systems, Uplift Resistance (TGIK).** Supporting structural members are evaluated only with respect to spacing and physical properties such as gauge, yield strength, grade and species of lumber and related factors, which could affect fastener attachment and necessary resistance to uplift forces. Secondary supports (beams, purlins, joists, bulb tees, lateral bracing, etc.), connections of the assembly to the main structural members (girders, columns, etc.) and construction details along the edges of the roof and around openings in the roof (skylights, chimneys, etc.) have not been evaluated unless specified in the construction. Constructions including skylights have been evaluated with single width skylight panels flanked on each side by a metal panel. Constructions including eaves/soffit have been evaluated for resistance to uplift pressures on the underside only.

Roof deck constructions consist of two groups. Construction illustrations and descriptions, beginning with Construction No. 1 include assemblies using metallic decks and constructions beginning with NM501 include assemblies using nonmetallic decks.

The specifications for the materials and their assembly are important details in limiting the flame spread on the underside of roof deck constructions or in resisting damage from high velocity winds. UL's Classification and Follow-Up Service is available for those materials so designated in the constructions described. The classifications of these materials are shown under Roof Deck Construction Materials (TGYV).

Metal Deck Assemblies

The metal deck assemblies illustrated are identified by a Construction Number.

Certain foam plastic insulation board products are acceptable for use in lieu of compressible fiberglass insulation in all roof deck constructions Classified for Wind uplift resistance in which the Metal Roof Deck Panels (TJPV) are directly fastened to structural members by means of self-drilling or self-tapping screws, or similar products. Refer to the Foamed Plastic (TJBX) category for information pertaining to the installation requirements.

Nonmetallic Deck Assemblies

The nonmetallic deck assemblies illustrated are identified by a construction number.

* *

Last Updated on 1998-12-26

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Metal Roof Deck Panels

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[Roof Deck Constructions] (Roof Deck Construction Materials) Metal Roof Deck Panels

See General Information for Roof Deck Construction Materials

GENERAL

This category covers metal roof deck panels for use in roof deck constructions. The applicable Construction Number(s) for these materials are indicated in the individual Classifications.

Metal roof deck panels are either formed in the factory or in the field. Factory-formed panels are eligible to bear the Underwriters Laboratories Inc. Classification Mark. Field-formed panels do not bear any reference to Underwriters Laboratories Inc.

A Certificate may be used in lieu of marking each factory-formed panel with the UL Classification Mark. If the Certificate program is used, the smallest unit package of panels is marked "See  Certificate."

For field-formed panels, an Underwriters Laboratories Inc. Certificate is issued for each machine that is capable of producing panels that comply with the requirements. The Certificate is issued for a six-month period after which the machine will require recertification. The Certificate includes the Classification Mark with the product identification "Field Formed Metal Roof Deck Panels," the forming machine model and serial number, and the panel specifications. Included with the Certificate is a drawing of the panel.

UNEVALUATED FACTORS

The corrosion resistance of the metal roof deck panels has not been investigated.

ADDITIONAL INFORMATION

For additional information, see Roof Deck Constructions (TGKX) and Roofing Materials and Systems (AARM).

REQUIREMENTS

The basic standard used to investigate products in this category is UL 580, "Tests for Uplift Resistance of Roof Assemblies."

UL MARK

The Classification Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Classification and Follow-Up Service. The Classification Mark for these products includes the UL symbol, the word "CLASSIFIED" above the UL symbol (as illustrated in the Introduction of this Directory), and the following additional information:

METAL ROOF DECK PANELS
AS TO UPLIFT RESISTANCE
CLASS +
AS SHOWN BY CONSTRUCTION NO(S). ____
SEE UL ROOFING MATERIALS AND SYSTEMS DIRECTORY
Control No.

\+ **15**, **30**, **60** or **90**

* *

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Last Updated on 2006-12-14

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Roofing Materials and Systems

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Roofing Materials and Systems

GENERAL

Roofing materials and systems are investigated for protection from external fire exposure. Roof deck assemblies are investigated for performance under internal fire exposures and for uplift resistance.

These materials are intended for use only in specific construction designs as described in the general Guide Information for each product category and individual Listings. The use of the materials in conditions other than described in the instructions, markings and the general Guide Information for the applicable product category has not been investigated by UL.

INVESTIGATION REQUIREMENTS AND STANDARDS

The scope of product sizes and ratings appearing in the general Guide Information for some product categories is intended to indicate the current range of Listed products, however, it is not necessarily indicative of limitations for those Listed products.

The standards used to investigate products are identified in the general Guide Information for each product category. There may not always be a published standard for investigating a product to determine its acceptability for Listing or Classification. If no applicable standard is available, UL will exercise its judgment in the selection of applicable requirements from related standards and other sources to develop the requirements to cover uses and conditions for which specific requirements did not previously exist.

Products, equipment and construction materials certified by UL in accordance with international or regional standards only (e.g., products Classified to an IEC or ISO Standard) are intended for distribution, installation and use in areas of the world where the specified standards have been adopted and are in effect as national or regional standards.

INSTALLATION REQUIREMENTS

The limitations for the equipment as specified in the general Guide Information for each product category such as voltage and temperature limits, markings, special descriptions and installation provisions need to be noted prior to installation and use.

Equipment has been investigated with reference to risks to life and property and for potential conformity to the installation and use provisions of the applicable installation codes and standards of the National Fire Protection Association (NFPA), and applicable model codes identified in the general Guide Information for each product category.

Some products are certified for uses not within the scope of nationally recognized installation codes and standards. Such products are investigated for the specifications or use conditions indicated in the general Guide Information for each product category.

These products are intended for installation subject to approval by the Authority Having Jurisdiction. Authorities Having Jurisdiction should be consulted before installation.

INSTRUCTIONS AND PRODUCT MARKINGS

These products are intended to be installed in accordance with the installation instructions provided with the product. It is critical that the cautionary statements and installation and operating instructions on the product and in accompanying literature be followed.

* *

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Last Updated on 2004-10-12

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