

Technical Bulletin

Issue Date: April 15, 2002

No. 03-138-02

UL Construction #167 R-Panel UL580 Class 90 Wind Uplift

1. **Metal Roof Deck Panels*** - No. 26 MSG min gauge coated steel. Panels continuous over two or more spans. End laps to occur over purlins with panels overlapped 6 in. with laps beginning even with purlin web and extending across purlin flange. A bead of sealant may be used at panel side and end laps.
2. **Building Units*** - Translucent, reinforced plastic panels. Thickness 1/16 in. formed to the same configuration as the metal roof deck panels. Panels continuous over two spans.

Tremco Incorporated. "R-Panel"
3. **Panel Fasteners** - For steel panel to purlin and for translucent panel to purlin connections to be No. 12-14 by 1 in. self-drilling, self-tapping, hex head, plated steel screws with a separate or integral 9/16 in. to 5/8 in. O.D. formed steel or combination zinc and steel washer and a neoprene/EPDM sealing washer. Fasteners for panel connection to be same type and length.

Tremco Incorporated. "R-Skylight"

Fastener for panel to purlin connection to be 1-1/4 in. long when insulation (Item 6) is greater than 4-1/2 in.
Spacing For steel panel to purlin fasteners, spacing to be 12 in. on center beginning 2-1/2 in. from the center line on one side of each major rib. Spacing at end lap to be in a 5-7-5-7 in. pattern beginning 2 1/2 in. from the center line on both sides of each major rib.
 For translucent panel - to - purlin fasteners, spacing to be in a 5, 3 1/2, 3 1/2, 5 in. pattern beginning 2 1/2 in. from the center line on both sides of each major rib.
 For steel panel - to - panel fasteners, spacing to be 20 in. on center. For translucent panel - to - steel panel fasteners, spacing to be 12 in. on center driven into rib reinforcement (Item 4).
4. **Translucent Panel Rib Reinforcement** - For side support - hat - shaped section fabricated from No. 26 MSG steel to the configuration of the steel panel major rib.
5. **Translucent Panel Purlin Reinforcement** - For translucent panel reinforcement over purlins, 3 in. wide by No. 26 MSG thick steel strips fabricated in the shape of the metal panel.
6. **Insulation** - (Optional) - Any compressible blanket insulation 6 in. max thickness before compression.
7. **Purlins** - No. 16 MSG min gauge steel (50,000 psi min yield strength).
8. **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

