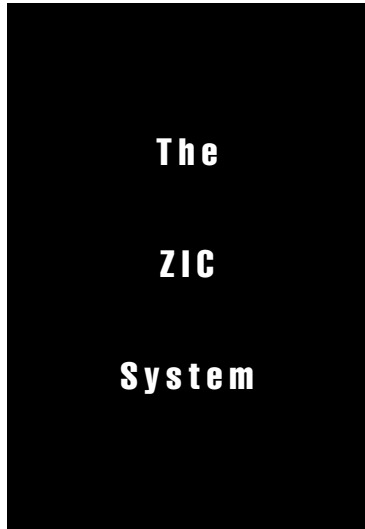


DOWNWARD LOADING PROPERTIES FOR CORRUGATED METAL DESIGNS

Data Sheet SI-911



The composite action of ZIC and galvanized, corrugated metal decking gives the ZIC System much better downward load carrying capacity than that of the metal deck alone. Results of test programs conducted at independent test laboratories are shown below for three ZIC designs.

Metal Deck Gauge & Span	ZIC Over Corrugated Metal			ZIC & Insulperm® Over Corrugated Metal			ZIC & Insulperm Over Slotted Corrugated Metal		
	Live Load for \geq L/240 (psf)	Ultimate Load (psf)	Safety Factor	Live Load for \geq L/240 (psf)	Ultimate Load (psf)	Safety Factor	Live Load for \geq L/240 (psf)	Ultimate Load (psf)	Safety Factor
26 ga. Metal 15/16" Profile On 6'0" O.C. Span	148	417	13.9	78	240	8.0	110	256	8.5
24 ga. Metal 1-5/16" Profile On 8'0" O.C. Span	92	290	9.7	54	198	6.6	60	180	6.0

Notes:

1. Details of construction for the three roof decks are:
 - a. ZIC over corrugated metal -- 2 inches of ZIC is placed over the top of the corrugations of the galvanized metal decking.
 - b. ZIC and Insulperm over corrugated metal -- ZIC slurry coat is used to fill the flutes of the galvanized metal decking and is placed to a depth of 1/8 inch over the top of the metal deck. Insulperm is embedded in this slurry coat while it is still wet, and a final layer of 2 inches of ZIC is placed over the Insulperm.
 - c. ZIC and Insulperm over corrugated metal -- the details of construction are the same as in 1b above, except that the galvanized corrugated metal deck is slotted to provide approximately 1.5% open area.
2. Safety factor is based on a design live load of 30 psf.
3. Test results shown are for a two span condition.
4. Welding patterns were conventional with washers.

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