Amvic Decking System

Overview

The Amvic Decking System is a modular, lightweight stay in place form made of Expanded Polystyrene (EPS) that is used to construct concrete floors and roofs. When installed properly the system provides structural strength through reinforced concrete and insulation through EPS. The System utilizes 10" inch lightweight steel framing studs which carry the temporary construction loads until the concrete gains its required strength and act as furring strips to which interior finishes can be attached. This system perfectly compliments your Insulated Concrete Form (ICF) structure and together they provide a complete structural and thermal "building envelope".

Unique Features

Enables Shoring Spans of Over 20Ft

The Amvic Decking System implements full 10 inch deep lightweight steel joists (Gauge 12, 14 or 16 depending on application) to support construction loads. As a result, the shoring requirements can be up to 20 feet on centre which is 4x less than required for competing products, which significantly reduces overall project construction costs.

Fully Reversible

The Amvic Decking System is fully reversible and can be stacked either way which reduces labour time and construction waste on the jobsite.

Small/Compact Units

Unlike many competing products the Amvic Decking System comes in standardized, small, lightweight modular units. This means that the system is much easier to use and handle since pieces are not as large and bulky. In addition, required sizes also do not need to be pre-order since quantity can be adjusted to fit your project needs and leftover forms may be used for future projects.

Offers Protection

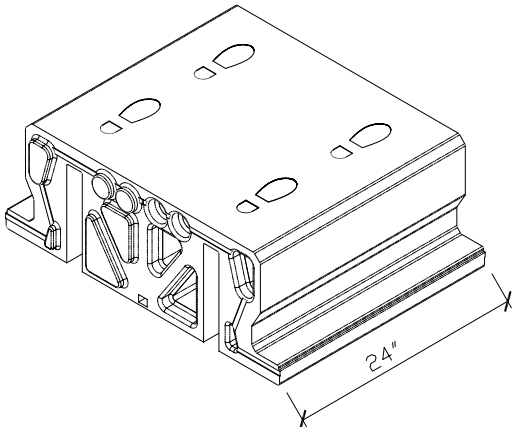
When used for roofs, the concrete decking will provide ample protection against natural disasters such as tornadoes, hurricanes and fires with a fire rating of up to 2 hrs.

Provides Structure

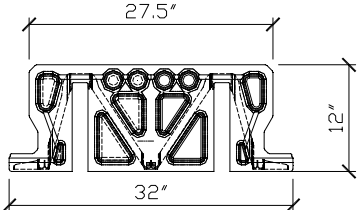
One-way concrete floor/roof joists which are formed by the Amvic Decking System can span approximately between 30ft to 35ft using normal concrete mixes and conventional reinforcing steel. Spans of greater than 40ft can be achieved using higher strength concrete and post-tensioned reinforcing cable strands.

High Performance

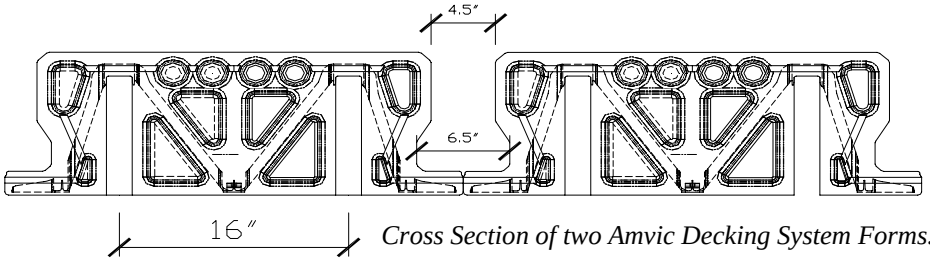
The EPS used in the decking system provides continuous insulation to your concrete floor/roof which will provide you will an R-value of between 10- 20 depending on other materials used in conjunction with the system. The insulation is also highly effective reducing the amount of noise that travels from one storey to another.



Isometric view of an Amvic Decking System Form.



Cross Section of an Amvic Decking System Form.



Cross Section of two Amvic Decking System Forms.

Stacking the Amvic Decking System.

Pouring concrete onto the assembled forms.

Smoothing concrete to create a flat surface.

Amvic Decking System Concrete Joists

Maximum span for concrete joists as per table below, based on:

- 10 psf dead load
- 40 psf live load
- Single span $wl^2/8$
- Fy = 60,000 psi , Fc = 3,000 psi

Amvic Decking System Concrete Joist Maximum Spans
This table is for estimation purposes only.

Slab Thickness	Bottom Steel	Top Steel Transverse	Top Steel Longitudinal	Max. Span
2”	2 # 6	#3 @ 16 o/c	#3 @ 16 o/c	25ft
2.5”	2 # 6	#3 @ 16 o/c	#3 @ 16 o/c	26ft
3”	2 # 7	#4 @ 12 o/c	#3 @ 16 o/c	27ft
3.5”	2 # 7	#4 @ 12 o/c	#3 @ 16 o/c	28ft
4”	2 # 8	#5 @ 12 o/c	#3 @ 16 o/c	29ft
4.5”	2 # 8	#5 @ 12 o/c	#3 @ 16 o/c	30ft

10 Steps to Easy Installation

1. Erect shoring as per engineer or code requirements.
2. Install steel joists 16” apart.
3. Stack forms starting from one side and work towards the other side.
4. Install electrical conduits and block-outs for service penetrations.
5. Place rebar for concrete joists.
6. Place transverse and longitudinal rebar for the concrete top.
7. Pour concrete onto forms starting from one side and work towards the other side.
8. Follow with a pencil vibrator to ensure proper concrete consolidation.
9. Smooth concrete out to create a flat surface.
10. Let concrete cure and proceed with further stages of construction.