

5. The Hilti fasteners are applicable to the following substrate thicknesses:
  - X-EDNK22: 1/8 in. ≤ substrate thickness ≤ 1/4 in.
  - X-HSN 24: 1/8 in. ≤ substrate thickness ≤ 3/8 in.
  - X-ENP-19: substrate thickness ≥ 1/4 in.
6. The Pneutek fasteners are applicable to the following substrate thicknesses:
  - SDK61 series: 0.113 in. ≤ substrate thickness ≤ 0.155 in.
  - SDK63 series: 0.155 in. ≤ substrate thickness ≤ 0.250 in.
  - K64 series: 0.187 in. ≤ substrate thickness ≤ 0.312 in.
  - K66 series: substrate thickness ≥ 0.281 in.
7. Select appropriate minimum #12 screw based on actual substrate thickness. This table is provided as a guide, proper selection should be verified based on the specific fasteners used.

| Support Thickness         | Fastener Designation |
|---------------------------|----------------------|
| 33 mil (0.0346") to 3/16" | #3 Drill Point       |
| 1/8" to 1/4"              | #4 Drill Point       |
| 1/8" to 1/2"              | #5 Drill Point       |

8. SDI recognized #12 or #14 screws to supports are limited to Buildex, Elco, Hilti, or Simpson Strong-Tie screws with a minimum substrate thickness of 0.0385 in.
9. The #12 screws are self-drilling self-tapping screws with a minimum washer diameter of 5/16-in. and a minimum washer thickness of 0.05 in. The screws must be compliant with ASTM C1513.
10. The allowable shear strength of the individual screws, as published by their manufacturer, must meet or exceed the allowable screw connection shear strengths listed above.
11. The strength is the ASD allowable connection shear strength, where  $\Omega$  is 3.0 for welds and 2.5 for Hilti, Pneutek and SDI Recognized Screw fasteners. Convert ASD shear strengths to LRFD based on  $\phi = 0.55$  for welds and  $\phi = 0.65$  for Hilti, Pneutek and SDI Recognized Screw fasteners.
12. Allowable shear strength may not be increased for wind or seismic loading.

## VERCO FLOOR DECK FINISHES

Verco floor decks are offered in various finishes:

### Phosphatized/Painted

The bottom (exposed) side of FORMLOK deck produced from cold rolled steel conforming to ASTM A1008 or ASTM A1039 is painted with a heat-cured gray acrylic primer applied by a roller coat process. The top side of the deck in contact with the concrete is left uncoated. The formation of light rust on the top side before placement of the concrete is normal and is not detrimental to the FORMLOK deck or the composite slab. Verco gray primer is approved by UL for use in protected and unprotected fire-rated assemblies. Refer to Table 9 on pages 32–33 for specific listings.

Due to varying job site conditions, application methods, coating manufacturers, environmental conditions and expectations, it is essential to conduct a field test to determine compatibility of the field applied top coat with the Verco primer coat prior to full scale painting. Primer specifications are available from the Verco website ([www.vercodeck.com](http://www.vercodeck.com)). Verco is not responsible for topcoat compatibility.

Verco assumes no responsibility for adhesion of any spray applied fire-proofing material, nor any treatment, cleaning, or surface preparation of the deck required for the adhesion of the fire protection material.

**Primer paint is intended to protect steel deck for a short period of exposure to ordinary atmospheric conditions. It should be considered an impermanent and provisional coating.**

Minor aesthetic irregularities and/or imperfections may appear in the paint coating as a result of the manufacturing and handling processes.

## Galvanized

Galvanized FORMLOK deck is produced from cold rolled zinc coated steel (ASTM A653 or ASTM A1063). Coating designation G60 is the standard zinc coating of the deck industry. Coating designation G90 is a heavier, more costly zinc coating sometimes specified for exposed exterior applications or other project specific requirements.

Deep and Shallow VERCOR form decks are fabricated from G90 galvanized steel conforming to ASTM A653 or A1063. Galvanized VERCOR deck can be considered as a permanent form. Uncoated decks should not be considered permanent forms; therefore, the reinforced slab should be designed for the total load. Uncoated VERCOR deck is available only as a special order.

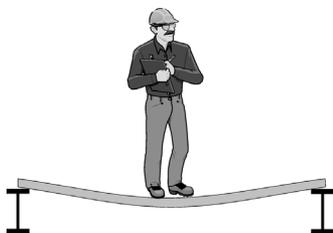
## Galvanized with Primer

Galvanized FORMLOK deck is available with factory gray or white primer applied to the bottom (exposed) side of the deck for applications where the deck will be field-painted (eliminates the need for field priming) or must meet other specific requirements. Fire ratings with spray applied fireproofing are not applicable for galvanized decks with primer painted underside.

## Exposed Product Appearance

FORMLOK deck and cellular FORMLOK deck are structural products. Minor dents and scratches which do not affect the structural capacity of deck are not grounds for rejection. Note that lighter gage material is more susceptible to the appearance of oil canning and minor dents during the shipping, handling and installation process. For cellular FORMLOK deck, flat bottom pans are susceptible to the appearance of oil-canning, particularly when perforated. The appearance of oil canning does not affect the structural integrity of fluted and cellular FORMLOK decks and is not grounds for rejection.

## FLOOR DECK DURING CONSTRUCTION



The maximum spans of FORMLOK and VERCOR deck without shoring shown in the tables on pages 40–143 are based on the dead weight of concrete and deck plus the more critical of either a 20 psf construction live load or a 150 lb concentrated load which simulates the effects of a worker standing on the deck. If these loads are exceeded, there may be excessive deflection and/or buckling of the web and top flange, resulting in subsequent deck failure.

## Spans

Span length is one of the key factors in determining an appropriate deck profile. Determine logical span multiples (3 span minimum if possible) based on the bay size. The maximum length for FORMLOK or VERCOR deck is 40 ft. Contact your Verco representative regarding the availability of deck if lengths between 40 ft and 45 ft are required. The maximum length for cellular FORMLOK deck is 32 ft. Handling the deck during installation should also be considered when evaluating long deck lengths, especially in heavier gages.

**Table 3: FORMLOK Deck Span Suggestions**

| Span Length | Deck Type          |
|-------------|--------------------|
| ≤ 8 ft      | PLB or B FORMLOK   |
| 7–10 ft     | PLW2 or W2 FORMLOK |
| 9–15 ft     | PLW3 or W3 FORMLOK |