

THE PIONEERS OF PREFORMED CONCRETE SLAB DECK PLATE SYSTEMS



SYSTEMS BROCHURE



# THE MOST ADVANCED REBAR DECK SYSTEM

#### **PRODUCT DESCRIPTION**

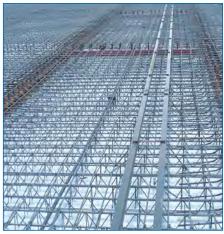
**Ferro Deck** is a unique preformed deck plate suspended concrete slab system. The system is comprised of a combination of upper and lower rebar steel and dimensional formed truss wire (ø4, ø5, ø6) to form a warren trans DECK SLAB. Galvanised steel sheet of 0.45mm and 0.5mm is used to form the bottom deck plate.

## **ADVANTAGES**

- Reduced project cost up to 30%
- Reduced system installation time -Up to 60%
- No deck support required up to 5m
- No formwork required quicker fit out access
- Precise construction prefabricated modular system
- Safer work environment lightweight (17kgm2), reduced labour
- Minimal storage space
- Proven tried system

#### **APPLICATIONS**

The Ferro Deck systems are suitable for,



Steel Frame Structure



Steel and Concrete Structure



**Pre-Cast Structure** 



**Wall Structure** 

## **FEATURES AND BENEFITS**

# 1. Precise Construction

The prefabricated manufacturing process provides accurate steel truss profiles, rebar distances and cover thickness to achieve optimal slab profiles. Each deck section has a built in camber to prevent slab sag and concrete loss.

## 2. Reduced Construction Time

Disassembly of traditional formwork and propping systems is not necessary following the concrete pour. Follow up construction can commence immediately.

Installation of the deck system onto a steel structure can be performed at the same time. Follow up construction work can be completed during the time traditional formwork would normally be installed. The deck sections can be easily maneuvered and installed significantly reducing the slab construction time (20%-40% time reduction compared to traditional in situ slab systems).

For steel frame structures the deck sections can be installed to the steel without the need for additional connectors.

#### 3. Reduced Construction Costs

The design of the deck plate can maintain its flat profile eliminating deck plate voids.

Fireproofing of the deck plate system is not required due to the design of the slab function.

Temporary propping is not required to support the deck system (i.e. up to 5.0m span lengths).

Shortened construction time can have a significant indirect positive impact on the overall cost of the

#### 4. Simplified Construction

The Ferro Deck system can be easily installed following the installation literature.

The deck sections lightweight makes it easier and safer to install (approx. 17kg/m2)

Labour to install can be significantly reduced compared to traditional in situ slab systems (a typical 7 member installation crew can install approx. 1000m2 in two days).

## 5. Waste Material Reduction

The Ferro Deck system is itself the formwork for the slab, therefore waste from disassembling traditional formwork is largely eliminated which allows for increased site management efficiency.

Steel wastage is minimized within the design of the deck plate system.

# **6.** Extensive Installation Applications Ferro Deck is designed to accommodate heavy loads so it can be applied to steel structures, steel &

so it can be applied to steel structures, steel & concrete, double slab and pre-cast. A Ferro Deck system can be adapted to existing floor slab designs.

## 7. Effective Site Management

The Ferro Deck sections can be immediately placed and stored on the appropriate floor level minimizing the need for storage space on site.

Efficient use of Ferro Deck systems lightweight materials and installation labour will help reduce the risk of injury on site.

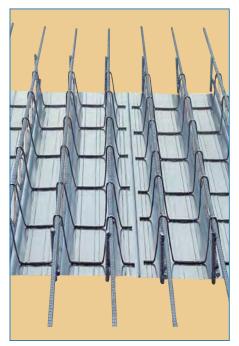




#### **SYSTEM TYPES**

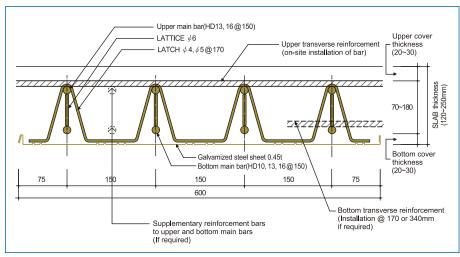
#### Ferro Deck 150

Installation is simpler and faster.



#### Ferro Deck (Main bar @150mm centres)

Material Type	C-TYPE	B-TYPE	E-TYPE	D-TYPE
Upper Main Bar	HD13	HD13	HD16	HD16
Bottom Main Bar	HD10	HD13	HD13	HD16



## Econo Ferro Deck 200

## Economically the best.

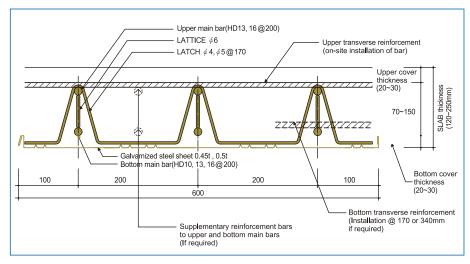


- 1. Overall slab thickness can be designed for 120mm 250mm and cover thickness can be possible with 20mm, 25mm and 30mm.
- **2.** Ferro Deck system can be calculated from the dead load and live load requirements.
- **3.** Each system type is determined depending on the thickness of the upper and lower rebar steel.

The system types can be applied to a steel framed structure, steel & concrete, Pre cast, double slab and wall structures.

# Econo Ferro Deck 200 (Main bar @200mm centres)

Material Type	TC-TYPE	TB-TYPE	TE-TYPE	TD-TYPE
Upper Main Bar	HD13	HD13	HD16	HD16
Bottom Main Bar	HD10	HD13	HD13	HD16



#### **MATERIALS USED**

Deformed bar HD10,13,16 (SD300, SD400W, SD500W):KSD 3504

Circle Wire ø4, ø5 (LATCH), ø6 (LATTICE) mild steel wire: KSD 3554

Galvanised Steel Sheet 0.45mm, 0.5mm dissolved galvanised steel sheet: KSD 3506

## **FERRO DECK POWDER COATED PANELS**

New powder coated panels completely blocks the effect of unsightly moisture residue that can affect conventional galvanised steel deck systems. The wide range of colours offers an improved quality finish to your project.



**Conventional Galvanised Steel Deck** 



**Powder Coated Deck** 

## **POWDER COAT BENEFITS**

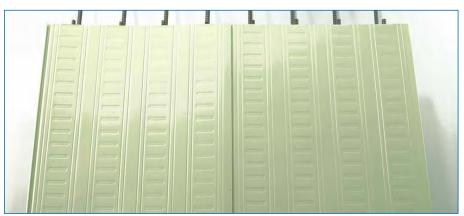
- Not vulnerable to moisture or discolourisation.
- Diverse colour range including matt and gloss finish.
- Factory powder coat application offers 3-4 times improved quality finish compared to on site applications.

  Strong and durable.

# **FULLY TESTED**

The powder coat application has been fully tested by the Testing and Research Institute of Korea. The tests include powder coat thickness, adhesion, acid resistance, alkali resistance, water proofing, and corrosion resistance (Test date April 2007-Passed all tests.)

## **SAMPLE COLOURS**



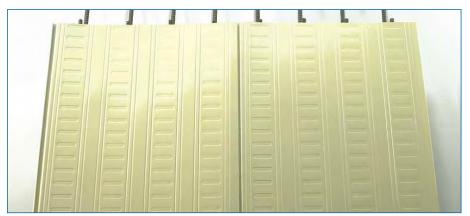
Grey



Light Grey



Light Sky Blue



Ivory

For over 15 years the Ferro Deck system has provided customers with the latest technology backed by consistent research and quality management.

Projects include: Industrial, Office, Residential, Commercial, Institutional, Recreational, Medical, Religious, and Parking facilities.

# **EXAMPLES OF COMPLETED PROJECTS**



Intergrated Government Building Korea



**Seoul Terminal City Complex** 



Samsung Semiconductor plant Giheung



**Tower Palace Dogok-dong** 



**Assem Tower Samsung-dong** 



World Cup Stadium Ulsan



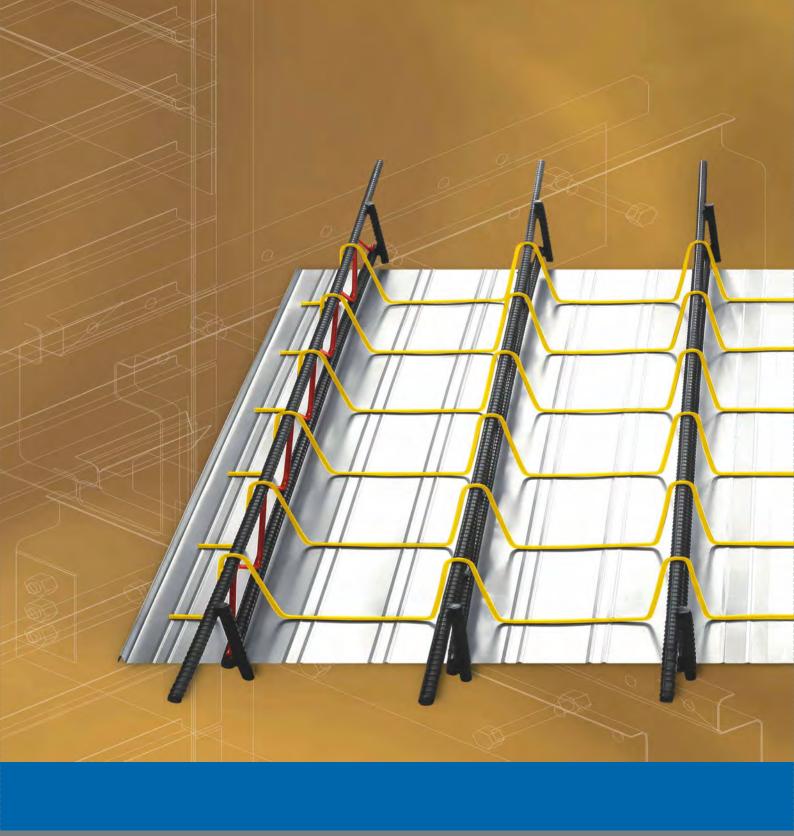
Daerim Acrotel Dogok-dong



Tree Polis Bundang



Office of Housing Corporation Korea



Supplied by Multiboard Australia



