

# FLYSLAB®

Solusi Hemat Bangunan Bertingkat

FLYSLAB adalah produk pra cetak dari plat beton panel seluler, yang merupakan plat beton ringan dengan memakai beton mutu tinggi K-300 dan besi tulangan U-39. Reduksi masa FLYSLAB mencapai 50% dibandingkan plat beton masif atau konvensional. Sehingga penggunaan FLYSLAB pada bangunan bertingkat sangat menguntungkan baik dari struktur bangunan maupun manajemen konstruksi.



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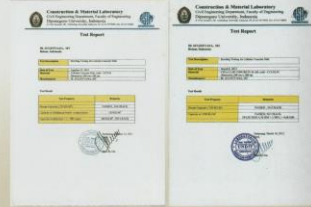
## Keunggulan FLYSLAB

- Struktur bangunan lebih efisien, hal ini disebabkan karena FLYSLAB merupakan plat beton yang ringan.
- Manajemen Konstruksi
  - ✓ Mengurangi item pekerjaan.
  - ✓ Waktu pelaksanaan pembangunan lebih cepat.
  - ✓ Tenaga kerja sedikit.
  - ✓ Pemasangan bekisting hanya untuk kolom dan balok.
  - ✓ Minim pengaruh dari cuaca (hujan).
  - ✓ Sisa material (waste material) tidak ada, sehingga lokasi kerja bersih.
- Biaya konstruksi bangunan lebih hemat 25% - 40% jika dibandingkan dengan cara konvensional.
- Lebih ramah terhadap gempa dan sangat sesuai dengan high - rise building terutama terkait dengan reduksi beban gempa.
- Memberikan ide - ide baru arsitek dalam menyelesaikan interior.



## FLYSLAB Telah lulus uji Standar ASTM (American Society for Testing and Material)

Standar ASTM digunakan pada Negara - Negara maju maupun berkembang dalam penelitian akademis maupun industri

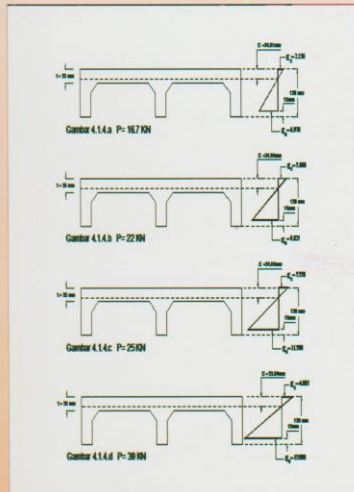
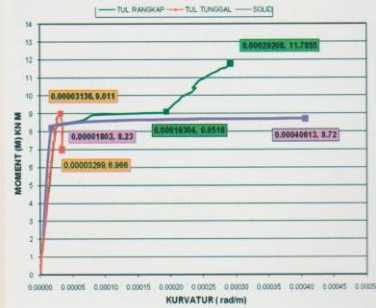


### Test Report Uji Standar ASTM



Proses Pengujian di Laboratorium

The Structures of plate concrete Flyslab equals with massive concrete slab/conventional. Concrete plate Flyslab is lighter 40% - 50% compared to the massive concrete slab/conventional with the same capacity. It enables to make precast system. It already conducted laboratory testing of materials and construction, majoring in Civil Engineering Diponegoro University with standard ASTM International (American Society for Testing and Materials). Cross section panel cellular concrete slab eliminated or reduced mass concrete. ASTM standards use in developed countries and developing countries in both academic and industrial research. ASTM centered in the United States



#### Advantage of FLYSLAB

- ☑ The structure of the building is more efficient. It is because it uses concrete slab FLYSLAB that light.
- ☑ Management of construction
  - Reduce work items
  - Implementation of fast work
  - Limit work force
  - Form work only for columns & beams
  - Lack of influence from the weather/rain
  - Waste material does not exist, so the job site cleans
- ☑ The construction costs of building more efficient from 25% - 40% compared with the conventional way
- ☑ The building more friendly to the earthquake and it also appropriate with the high-rise building primarily related to the reduction of earthquake load.
- ☑ It provides new ideas in solving interior architect

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**Flyslab** have pass **ASTM** standard testing to prove that load capacity and deflection of this slab acceptable for International Standard. Engineering behavior of this slab compare with conventional slab shown same behavior at elastic to ultimate limit, over the ultimate limit there is inapplicable zone.

**SPESIFICATION AND CAPACITY**

Effective Thickness with Ribs : 10 cm  
 Weight per meter square : 120 Kg  
 Concrete Grade : G25 -G40  
 Reinforcement Steel : U24, U32, U39  
 Design Live Load Capacity : 250 - 300 Kg/m<sup>2</sup>  
 Max Deflection Capacity 1/300 span : 350 Kg/m<sup>2</sup>  
 Yield Strenght Concrete Slab : 720 Kg/m<sup>2</sup>

Technical Data FLYSLAB type CCS.01.01

NO	TYPE FLYSLAB	MUTU BETON	MUTU BESI TULANGAN	MAX LIFE LOAD CAPACITY
1	CCS.01.01.01 800 x 1000 x 100	K - 250	U - 32 U - 24	250 Kg/m <sup>2</sup>
2	CCS.01.01.02 800 x 1500 x 100	K - 250	U - 32 U - 24	250 Kg/m <sup>2</sup>
3	CCS.01.01.03 800 x 2000 x 100	K - 300	U - 32 U - 24	250 Kg/m <sup>2</sup>
4	CCS.01.01.04 800 x 2500 x 100	K - 300	U - 39 U - 24	300 Kg/m <sup>2</sup>
5	CCS.01.01.05 800 x 3000 x 100	K - 300	U - 39 U - 24	300 Kg/m <sup>2</sup>
6	CCS.01.01.06 800 x 3500 x 100	K - 400	U - 39 U - 24	300 Kg/m <sup>2</sup>
7	CCS.01.01.07 800 x 4000 x 100	K - 400	U - 39 U - 24	300 Kg/m <sup>2</sup>

Technical Data FLYSLAB type CCS.01.02

NO	TYPE FLYSLAB	MUTU BETON	MUTU BESI TULANGAN	MAX LIFE LOAD CAPACITY
1	CCS.01.02.01 800 x 1000 x 100	K - 250	U - 32 U - 24	250 Kg/m <sup>2</sup>
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**Dimentions**

Flyslab designed to follow project location and lift equipments availability, but from experience we have propose slab size :

Width : 60 cm and 80 cm  
 Lenght : 200 cm, 240 cm, 300 cm, 360 cm, and 400 cm

To find optimum size we need to discuss with your engineering designer to make detail slab arrangement before starting production.

**EQUIPMENTS**

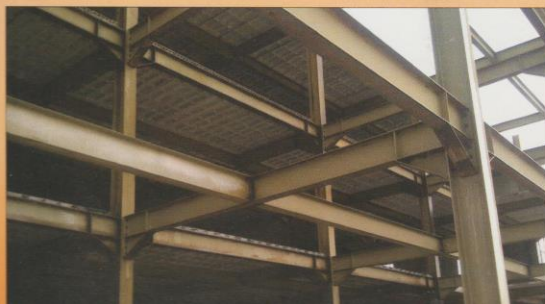
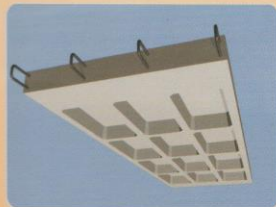
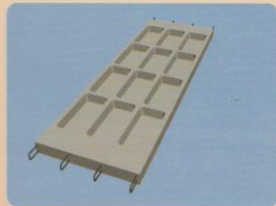
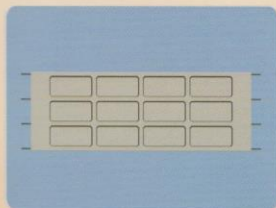
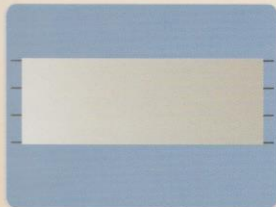
Truck Crane for land transportation or  
 Barge Crane for water transportations.  
 This crane also needs it for installations period



**APPLICATION AND INSTALLATION**

Installation of Flyslab as easily laying above the beam and fixed with casting both side with structural concrete. For finish works should applied concrete topping 2 cm - 3 cm before final floor works, such as ceramic tile, parquet, or others. Special for roof application after concrete topping should apply water proofing layer, membrane or coating.

For construction that will apply ramset or explosive nail gun should applied after 7 days concrete topping



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**FLYSLAB<sup>®</sup>**  
smart solution for multistorey buildings



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Flyslab is reengineering design of conventional reinforced concrete slab that throw out unused concrete mass to made light weight concrete slab, but with same behavior as conventional concrete slab at same load capacity applied



  
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Dimensi (modul) FLYSLAB disesuaikan dengan alat angkut ke lokasi dan alat angkut ke lokasi, adapun spesifikasi dimensi FLYSLAB sebagai berikut :

Data Teknis FLYSLAB tipe CCS. 01. 01

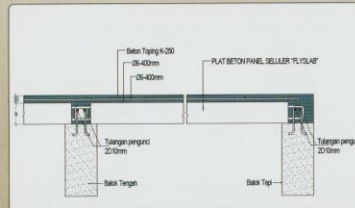
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Data Teknis FLYSLAB tipe CCS. 01. 02

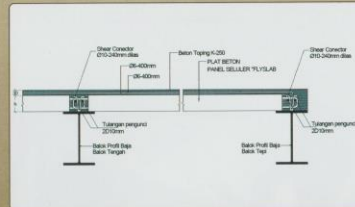
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DETAIL JOINT PADA BALOK

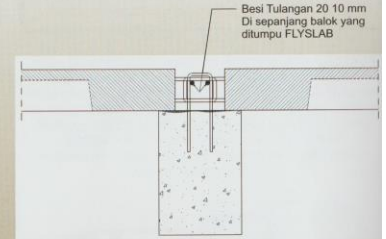


DETAIL JOINT PRECAST TERHADAP BALOK BETON



DETAIL JOINT PRECAST TERHADAP BALOK BAJA

Setelah FLYSLAB tersusun dilanjutkan dengan memasukkan besi pengunci diameter 10 mm sebanyak 2 buah ke dalam alur sambungan precast FLYSLAB.



Kemudian dilanjutkan dengan proses topping, yaitu proses pengecoran beton mutu beton K - 250 dengan tebal minimal 3 cm, dipadatkan dan dibuat miring ke arah pembuangan air.



\*Untuk fungsi atap harus dilapisi water proofing sebanyak 2 kali.

Info lebih lanjut hubungi marketing kami:

