

## Solutions

# Permanent Formwork

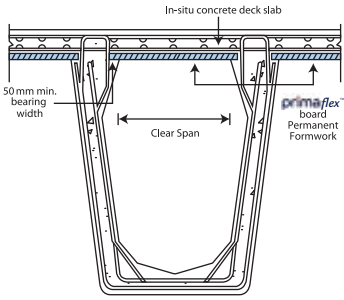
**primaflex**<sup>™</sup> board serves as a better alternative to conventional plywood formwork. It provides rigid support to which fresh concrete is poured to form reinforced concrete deck slab. It is recommended to be applied as permanent formwork in the construction of bridges, flyovers, floor and approach slab for elevated MRT/LRT stations and many other usages.

The key advantages are:-

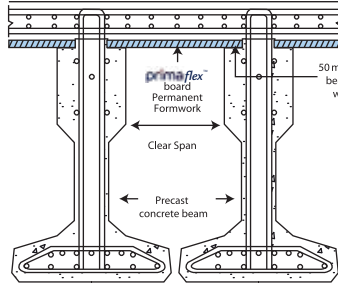
- No propping is required
- Faster than conventional formwork method
- Eliminate/minimize labour for dismantling plywood formwork
- Suitable for bridge construction with limited access
- Will not rot & resistant to termite attack

| Product name        | <b>prima flex™</b>   |
|---------------------|--|
| Product composition | <ul style="list-style-type: none"> <li>• Top grade cellulose Fibre</li> <li>• Finely ground sand</li> <li>• Portland cement</li> </ul> |

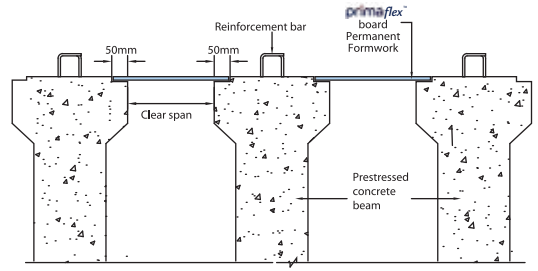
| Mass per sheet and <b>prima flex™</b> sizes recommended for permanent formwork application |          |          |          |
|--|----------|----------|----------|
| Thickness  | 12mm     | 16mm     | 20mm     |
| Width 1220mm<br>Length 2440mm  | 49.50 kg | 66.00 kg | 82.50 kg |



**U-Beam**



**M-Beam**



**I-Beam**

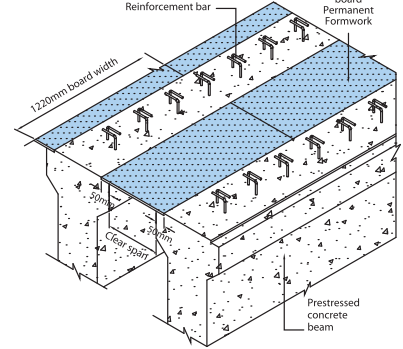


Conventional method requires various propping to support the concrete pour.



**prima flex™** boards are ready for concrete pouring without need for additional support.

**Board placement direction**



**LOADING TABLE FOR PERMANENT FORMWORK**

| Board Thickness | Recommended maximum clear span (mm) |      |     |     |     |     |     |     |     |     |     |     |     |     |      |
|-----------------|-------------------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
|                 | 300                                 | 350  | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|                 | Concrete Thickness (mm)             |      |     |     |     |     |     |     |     |     |     |     |     |     |      |
| 12mm            | 590                                 | 420  | 325 | 255 | 200 | 165 | 140 | 120 | -   | -   | -   | -   | -   | -   | -    |
| 16mm            | 1040                                | 750  | 580 | 450 | 370 | 300 | 250 | 210 | 180 | 160 | 135 | 120 | -   | -   | -    |
| 20mm            | 1600                                | 1150 | 900 | 710 | 570 | 470 | 390 | 330 | 285 | 240 | 215 | 190 | 165 | 150 | 135  |

- Note:
1. Clear span refers to the net edge-to-edge distance between beams. This is the area where **prima flex™** board provides temporary support for the fresh concrete that forms the deck slab.
  2. For safety purpose of using **prima flex™** permanent formwork, do not stand, step or walk on bare suspended PRIMAFLEX board (temporary support) prior to installation of steel reinforcement and concrete.
  3. Concrete density is assumed at 25kN/m<sup>3</sup>
  4. Waterproofing material to be applied onto both surfaces and all board edges (optional).
  5. Do not apply in area where will be 'exposed to standing water' or 'continuously in contact with water'.
  6. Fresh concrete must be poured at the 'beam' area and progressively spread to the other area to form the required 'slab thickness'.
  7. Accumulation of 'fresh concrete' in excess of the recommended thickness, particularly at the mid-span of board may result in failure.
  8. Standard safety precautionary measures have to comply with the requirements set by licensed Safety Officer in charge of the project.



For more information, please contact us at:



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