

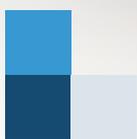


## Gdeck Insulated Flooring



### Benefits

- Easy to install
- Rails show beam locations
- Cut lines on units for reference points
- Approved by NHBC
- Minimal waste
- On site training
- No need for concrete between double/triple beams



**LONGLEY  
CONCRETE**



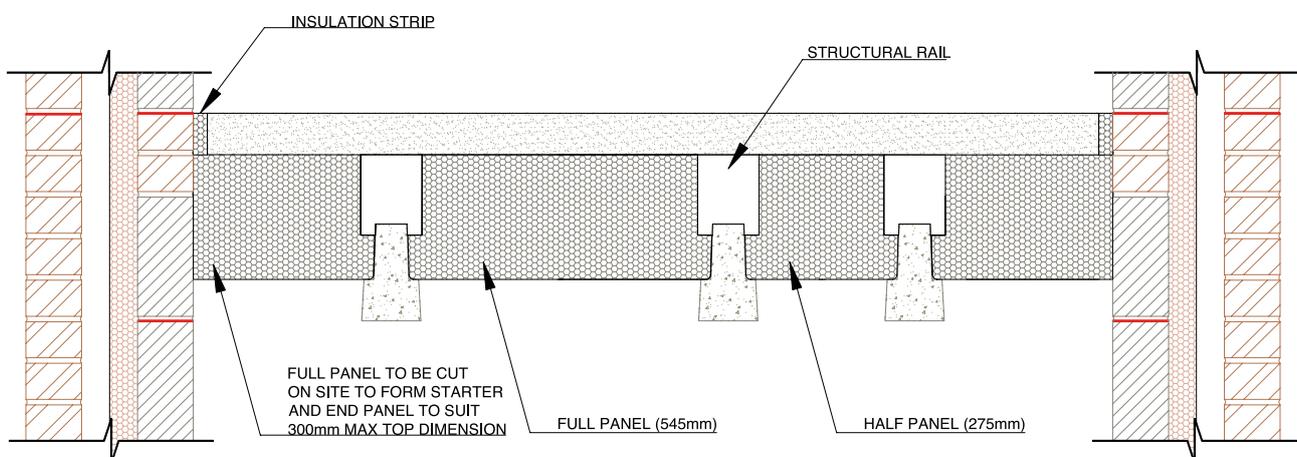
# Gdeck Insulated Flooring

The Gdeck EPS Panel System is a revolutionary new way to insulate ground floors. The system comprises of Longley beams, Gdeck infill panels and structural rails. The silver insulation panels provide high thermal performance which are then combined with high density white EPS rails which gives Gdeck great strength.

## The system offers many benefits including:

- Extremely quick install times for groundworkers
- Easy to fit insulation panels
- Symmetrical products with rails locatable on either side of infill panel
- Finished floor easily monitored for quality assurance
- Instant photographic evidence can be taken to prove correct installation
- Achieves a U-value as low as  $0.123 \text{ W/m}^2\text{K}$
- Load bearing Gdeck rails show groundworker safe areas to walk on
- Improved speed of install compared with alternative insulated flooring systems
- Gdeck Multi Rails remove need for grouting multiple beam locations
- Removes need for top sheet insulation
- Psi Strip™ can be supplied to reduce thermal bridging at perimeter of floor

## Gdeck Cross Section:





## Gdeck Components:



## Concrete Toppings

### Standard Concrete:

- Aggregate size normally 10 mm
- Consistence class of minimum S3 (100-150 mm) ideally S4 (160-210 mm)
- Self-compacting aggregate size maximum 10 mm and slump-flow of minimum SF3

### Reinforcement Concrete:

- Polymer Macro Fibre – 40-50 mm long/ 0.3-1.0 mm diameter/3.5 kg/m<sup>3</sup>
- Steel Macro fibre – 50 mm long/ 0.95 mm diameter/17.5 kg/m<sup>3</sup>
- Steel Mesh – A142 minimum

Gdeck provides a range of U-values that will help to improve the overall dwelling emission rate. The table below details the range, based on specific Perimeter/Area ratios and insulation material thermal conductivity values.

| P/A | White Panel<br>λ 0.038 | Grey Panel<br>λ 0.030 |
|-----|------------------------|-----------------------|
| 0.3 | 0.140                  | 0.123                 |
| 0.4 | 0.146                  | 0.129                 |
| 0.5 | 0.151                  | 0.132                 |
| 0.6 | 0.154                  | 0.135                 |
| 0.7 | 0.157                  | 0.137                 |
| 0.8 | 0.159                  | 0.138                 |

## Onsite Benefits

- Less manual handling due to beams being cut to size
- Lightweight (4kg) poly panels are easy to install
- Multirails negate the need to infill between beams
- Achieves a U-value as low as 0.123 W/m<sup>2</sup>K

## Certification

- Gdeck is approved by KIWA BDA under certificate number BAF 17-059/01/A (R1) & BAF 18-084/01/A (R2)
- KIWA BDA is Europe's largest, technical approval accreditation body
- Gdeck has been thoroughly tested by UKAS testing labs to meet British and European standards
- Gdeck is accepted by NHBC



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