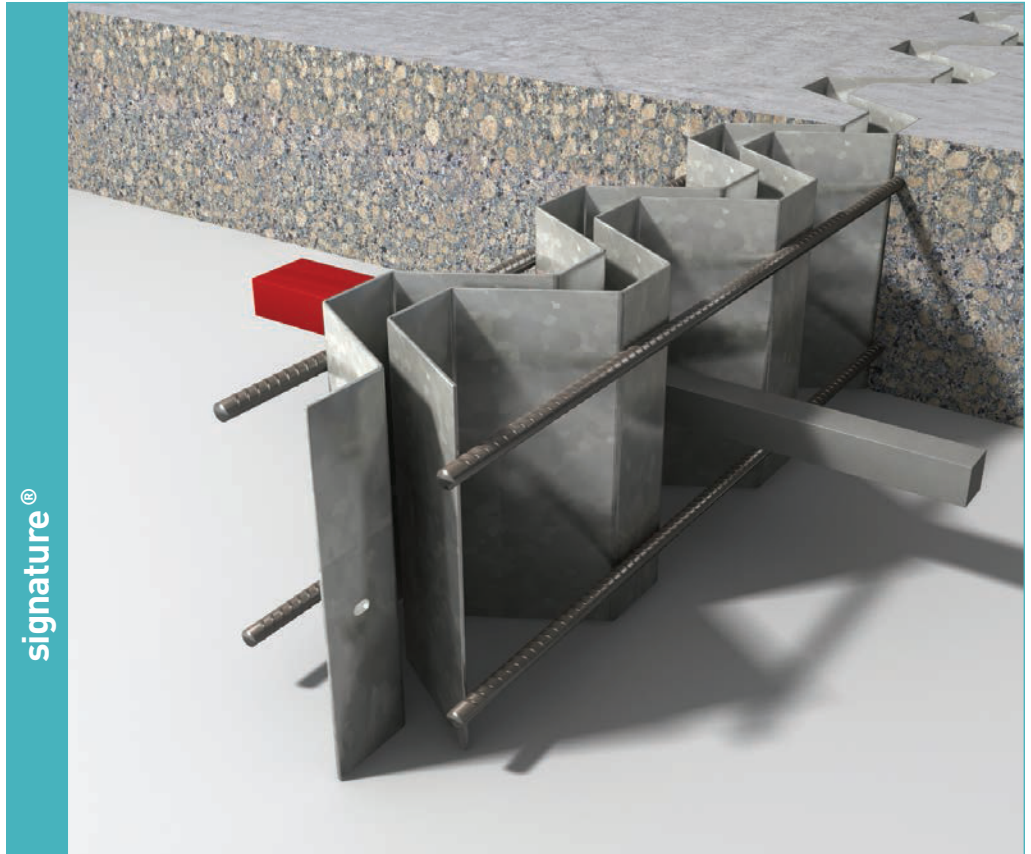
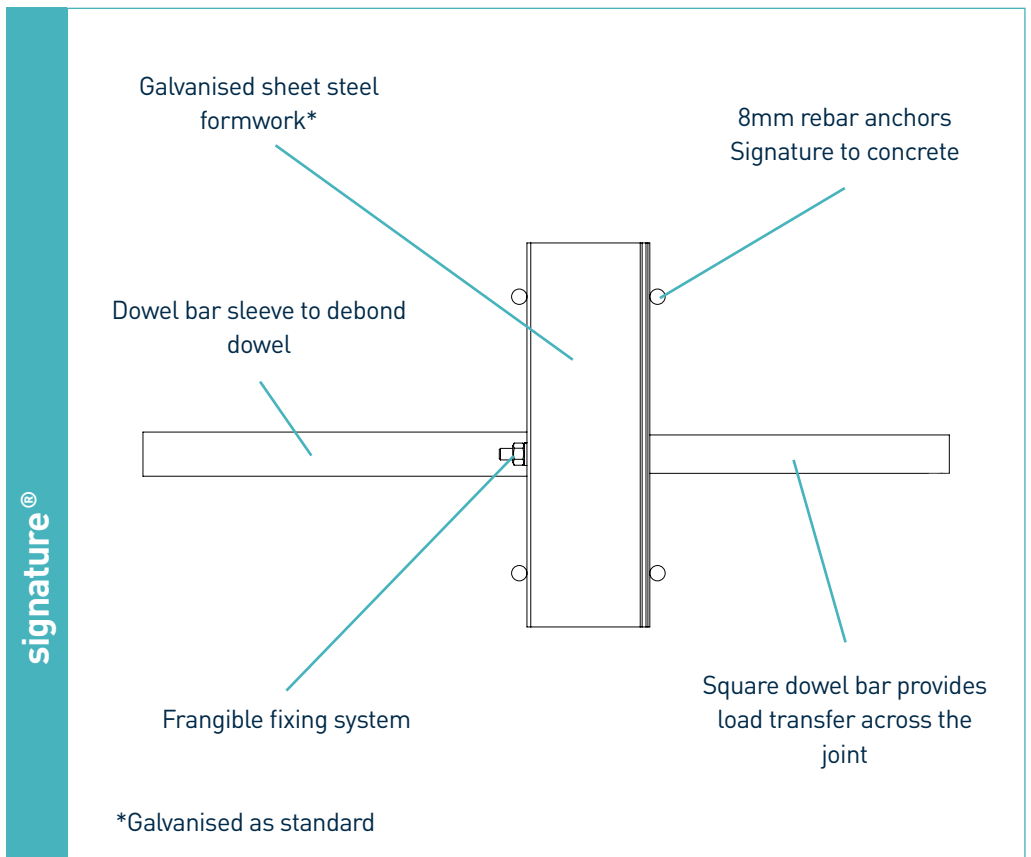


# signature<sup>®</sup>

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signature<sup>®</sup>



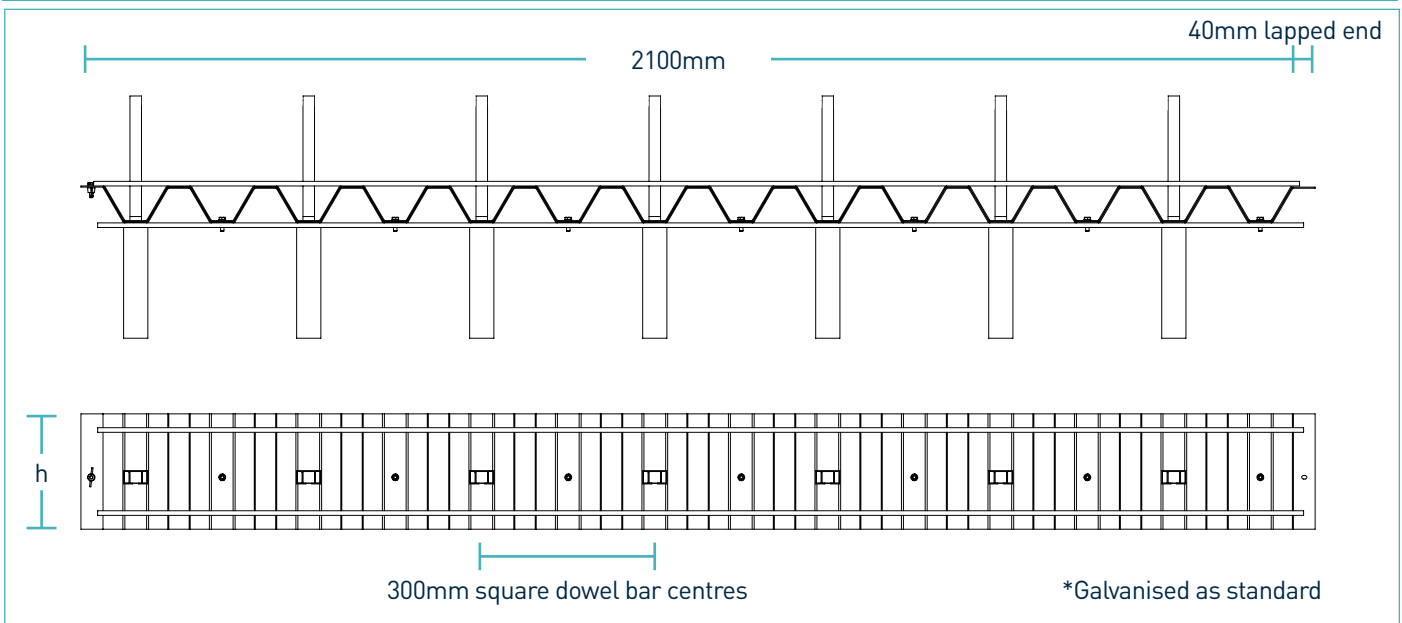
signature<sup>®</sup>



## manufacturing tolerances

|               |        |               |      |                     |              |
|---------------|--------|---------------|------|---------------------|--------------|
| <b>Length</b> | ±2.0mm | <b>Height</b> | ±1mm | <b>Straightness</b> | ±0.5mm/600mm |
|---------------|--------|---------------|------|---------------------|--------------|

## dimensions of signature<sup>®</sup>



## dimensions and weight of signature<sup>®</sup>

| Nominal Slab Depth (mm) | Joint Height, h (mm) | Dowel Size (mm) | Dowel Centres (mm) | Length (mm) | Single Joint Weight (kg) | Number Per Bundle | Bundle Weight (kg) |
|-------------------------|----------------------|-----------------|--------------------|-------------|--------------------------|-------------------|--------------------|
| 150                     | 125                  | 20 x 20 x 420   | 300                | 2100        | 23.4                     | 54                | 1382               |
| 180                     | 150                  |                 |                    |             | 24.8                     | 45                | 1290               |
| 200                     | 175                  |                 |                    |             | 26.7                     | 45                | 1380               |
| 220                     | 200                  |                 |                    |             | 28.4                     | 36                | 1212               |

Typical height and length values shown only. Weight values and bundle information shown are approximate.

## materials

| Component               | Material                  |
|-------------------------|---------------------------|
| Sheet material          | BS EN 10346:2009 DX 51D+Z |
| Reinforcement steel bar | BS 4449:2005 B500A        |
| Square dowel bar        | BS EN 10025-2:2004 S275JR |
| Square dowel bar sleeve | PP                        |



## theoretical calculated ultimate loads at failure of dowel or concrete

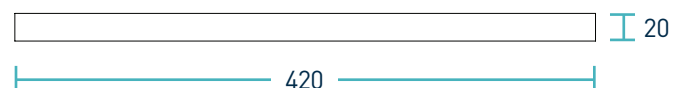
| Slab Depth (mm) | Unreinforced Slab |                |                                   | Steel Fibre Reinforced Slab (Re3 = 0.8) |                |                                   |
|-----------------|-------------------|----------------|-----------------------------------|-----------------------------------------|----------------|-----------------------------------|
|                 | Bursting (kN/m)   | Bending (kN/m) | Combined Bending and Shear (kN/m) | Bursting (kN/m)                         | Bending (kN/m) | Combined Bending and Shear (kN/m) |
| 150             | 42.00             | 145.00         | 105.30                            | 72.50                                   | 145.00         | 105.30                            |
| 200             | 56.00             | 145.00         | 105.30                            | 96.60                                   | 145.00         | 105.30                            |
| 250             | 70.00             | 145.00         | 105.30                            | 118.00                                  | 145.00         | 105.30                            |
| 300             | 80.40             | 145.00         | 105.30                            | 135.70                                  | 145.00         | 105.30                            |

Ultimate load (kN/m)

This table shows the load at failure in bursting (failure of the concrete), bending and combined shear and bending (failure of the dowel) for typical slabs with 40N/mm<sup>2</sup> cube strength concrete and a joint opening of 20mm. Larger joint openings can be accommodated. The ultimate load has been calculated in accordance with TR34 3rd Edition. For more detailed analysis please contact Permaban.

compatible dowel systems

Square Dowel Bar



dimensions in mm



# notes

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