



**BISON PRECAST**

a Forterra brand

# TECHNICAL GUIDANCE NOTE

Deflection head - 07 September 2018

Deflection heads are used for partitions when needing to allow for movement (upward, downward or both) within the structure at the head of a partition. This movement is due to the dead and live loads of the floor or roof above as well as long term creep and losses. The partitions need to accommodate this movement without transferring load to the studs thus protecting the partitions from buckling.

Deflection is the sum of the movement from self weight, camber, creep, prestress loss, dead and live loads. It can be a negative, signifying the slab is still cambered or a positive meaning the slab is sagging. Movement is due to live load, creep and prestress loss and is measured after the installation of the slab. This is the value to be used to specify the deflection head.

The table below shows the theoretical movement of the slabs and can be used as a guidance for the deflection head to be adopted for slabs with finishes of 2.1kN/m<sup>2</sup> and a Live load of 1.5kN/m<sup>2</sup>.

Table 1.0 - Theoretical deflection head

Slab type	Span	Deflection Head
150 deep	Up to 5.0m	2mm
150 deep	Up to 6.0m	7mm
150 deep	Up to 7.0m	11mm
150 deep	Up to 7.5m	17mm
200 deep	Up to 6.0m	1mm
200 deep	Up to 7.0m	5mm
200 deep	Up to 8.5m	10mm
200 deep	Up to 9.0m	15mm
250 deep	Up to 6.0m	1mm
250 deep	Up to 8.0m	6mm
250 deep	Up to 9.5m	10mm
250 deep	Up to 10.0m	14mm

For a design not covered in this guide please contact Bison Precast.