



SPEEDFLOOR

Faster Lighter Easier

Warranty Statement

‘When supplied and installed in accordance with the manufacturer's specifications and design parameters and in line with project specific Producer Statements for design, the Speedfloor suspended concrete flooring system can reasonably be expected to be fit for purpose and meet the performance criteria set out in the New Zealand Building Code for a period of not less than 50 years’.

Design Principles -: Speedfloor has been designed to comply with NZS 3404: Part 1 and 2: 1997, AS/NZS 4600: 1996 and the Australian Composite Structures standard AS 2327 Part 0 and 1, Structural Design Actions.

Design Parameters -: The section properties and design parameters are calculated from the section geometry, supplementary full-scale tests and finite element analysis. Speedfloor joists have flanged service holes in the web to assist in web stiffening and to provide practical services access. The joist is simply supported during construction with generally no propping required. The concrete is cast in place and acts compositely with the steel joist. Detailed analysis and comprehensive physical testing have enabled load versus span tables to be established using the limit state design philosophy. A load/span calculator is available on request from a Speedfloor representative.

Material -: Speedfloor joists are rollformed from zinc coated steel coil conforming to AS 1397. The minimum mass coating of galvanizing is 275g/m². The standard steel used is Grade 350 and has a minimum yield stress of 350MPa and a minimum tensile stress of 380MPa.

The concrete slab design, is based on a compressive strength of 25MPa (30MPa for carparks) in 28 days. Steel mesh reinforcement is placed at minimum cover, (according to durability requirements NZS 3101 Section 3.11) primarily for crack control caused by shrinkage during curing. Guidance on crack widths tolerances is given in NZS 3101 and Hera report R4-113.

If any doubt exists on the suitability of Speedfloor, approval should be sought in writing, as Speedfloor accepts no liability for the product other than when used in accordance with the manufacturer's specification.