

# Mesh for reinforcement of concrete slabs-on-ground

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Designers must specify Grade 500E reinforcing mesh when designing to B1/AS1. Grade 500E reinforcing mesh, specified in the latest version of Acceptable Solution B1/AS1 for the reinforcement of concrete slabs-on-ground, is widely available.

This information was confirmed as current in February 2016. It originally appeared in Codewords newsletters prior to January 2014.

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**Of interest to** Designers, Engineers

B1/AS1 requires that concrete slabs-on-ground, constructed to NZS 3604:2011 on good ground, be reinforced with a minimum of 2.27 kg/m<sup>2</sup> of Grade 500E reinforcing mesh.

The mesh must conform to AS/NZS 4671.

## Changes made because of Canterbury earthquakes

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The change to require a minimum of Grade 500E mesh was made because of the poor ductile performance of reinforcing mesh in the Canterbury earthquakes. Grade 500E reinforcing mesh allows better ductile performance to reduce damage during earthquake shaking and ground movement.

As Grade 500E reinforcing mesh was not initially available, we issued two satisfactory solutions of equivalent capacity. One was based on a lower-strength ductile reinforcing mesh, and the other on lower Grade (300E) ductile reinforcing bars.

## Working with industry

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We have worked with industry to ensure Grade 500E reinforcing mesh is now available. In particular, we liaised with Pacific Steel Limited, which manufactures the wire for the mesh, and members of the Welded Wire Reinforcing Market Development Alliance (WWRMDA), which manufacture the mesh.

All guidance related to B1 Structure (<https://www.building.govt.nz/building-code-compliance/b-stability/b1-structure/>)



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