

## NEW AUSTRALIAN STANDARD DEVELOPMENTS

### Bar Chairs

Standards Australia has just released the new AS/NZS 2425: 2015 Bar chairs in reinforced concrete – Product requirements and test methods.

This new standard covers all generic forms of bar chairs in the Australian market including:

- Wire
- Plastic
- Concrete

While much of the Standard deals with the sampling and testing of bar chairs for compliance, Engineers should be aware that four strength grades of bar chairs have been introduced: 60, 120, 200 and >300. These values refer to the load in kilograms that the bar chair is capable of supporting. For slab reinforcement, as individual bar chairs need to support the reinforcement, as well as the weight of concreters and equipment, strength grade 120 should be considered as the minimum. Strength grade 60 would be suitable for use as spacers or non-vertical loadbearing elements to ensure cover to the sides of forms or ends of bars. Engineers should also specify the spacing of bar chairs to suit these minimum performance requirements. This will ensure that bar chairs are installed correctly on site and not overloaded.

For strength grade >300, typically a concrete bar chair or spacer will be required. Concrete bar chairs are required to have a minimum concrete compressive strength of 60 MPa. In addition to the minimum strength requirement, and due to an inadequate coverage by design standards, concrete bar chairs are also classified by their chloride permeability to ensure durability in various exposure environments. Table 2 of AS/NZS 2425 provides the minimum requirements for the four chloride permeability classes: Very Low, Low, Moderate and High. Depending on the durability requirements of the project, the performance of individual concrete bar chairs may need to be discussed with the supplier.

The new Standard also requires that the protective tip of wire bar chairs is not penetrated under the rated load and concrete can be adequately placed and compacted around plastic bar chairs to minimise the risk of voids.

The Steel Reinforcement Institute of Australia (SRIA) will be presenting a paper at the upcoming Concrete Institute of Australia Concrete 2015 Conference titled 'Steel, Concrete or Plastic? Support your Reinforcement'. The paper will examine areas such as product and

performance requirements that bar chairs are expected to deliver including strength, permanent deflection, and accuracy of manufacturing within acceptable tolerances (dimensional stability), identification/batch/supplier traceability and fixing. The benefits and shortfalls of the main types of bar chairs are reviewed as well as the practical application of appropriate products for a range of construction tasks. All types of complying supports are shown to deliver cost-effective achievement of the design intent.



Example of inadequate bar chair placement in a residential concrete pavement.

### Residential Concrete Pavements

After many years of non-activity, the SRIA has been instrumental in the re-forming of Standards Australia Committee BD-098 responsible for the update of the 1993 Standard AS 3727 Guide to residential pavements. Members met on the 15 July to progress the content of this updated Standard which will include concrete residential pavements such as driveways, patios and pathways.

### PRE-REGISTER YOUR INTEREST

The SRIA would like to offer graduate engineers, practicing engineers, senior engineers and other interested industry professionals the opportunity to pre-register their interest in obtaining a copy of the new updated 'Guide on the Seismic Detailing for Reinforced Concrete Buildings in Australia' to be published in the upcoming month. **To register, please visit [www.sria.com.au/registration](http://www.sria.com.au/registration) or complete the form on the back of this page.**

## SERVICES SRIA PROVIDES

- Publications
- Technical support
- Office seminars
- Special research
- Industry leadership
- Professional development
- Awarding excellence
- Industry linkage
- Australian Standards

## SRIA NATIONAL ENGINEER



The SRIA has recently expanded its team and is fortunate to announce the appointment of Eric Lume into the position of National Engineer. This role will further increase SRIA's capacity to provide among other things technical support to the Australian Design & Construction market, Australian Standard development and deliver the National Tertiary support package.

Eric is a Civil and Structural Engineer with a wealth of industry experience. This includes a recent engagement with a Consulting Engineering firm in Christchurch, NZ assisting with the rebuild of earthquake damaged structures and this followed a 5 year position of Senior Lecturer at the University of Wollongong developing and teaching Civil Engineering course materials for the design of reinforced concrete masonry structures and concrete technology. Prior to this Eric was employed by Cement Concrete and Aggregates Australia (CCAA) for 15 years delivering technical support and development of the Associations publications. Eric's Engineering career includes 13 years in the Consulting Engineering Profession and a period with the Department of Main Roads, NSW.

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## SRIA REGISTRATION FORM

To keep informed of the most recent industry developments, releases and presentations on steel reinforcement and to maintain your professional development, register now for the SRIA website database. Your details will remain highly confidential and we will ensure your reinforcement knowledge remains up-to-date.

You may register online at  
[www.sria.com.au/registration.html](http://www.sria.com.au/registration.html)

or fill out your details below :

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Tick to pre-register for the Guide to Seismic Design & Detailing of Reinforced Concrete Buildings in Australia

and email, fax or post your details to SRIA National Office:

Post: PO Box 418 Roseville NSW 2069  
Fax: 02 9449 6459  
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