AS 5146.3:2015

Australian STANDARD

Reinforced Autoclaved Aerated Concrete

Part 3: Construction

STANDARDS Australia

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- Association of Consulting Structural Engineers of NSW
- Australian Building Codes Board
- Australian Institute of Building
- Building Designers Association of Australia
- Consult Australia
- CSIRO
- Engineers Australia
- Housing Industry Association
- Master Builders Australia
- National Precast Concrete Association Australia

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PREFACE

This Standard was prepared by the Standards Australia Committee BD-106, Autoclaved Aerated Concrete (AAC).

The objective of this Standard is to provide construction details and specifications that comply with the requirements of AS 5146.1, *Reinforced autoclaved aerated concrete*, Part 1: *Structures* and AS 5146.2, *Reinforced autoclaved aerated concrete*, Part 2: *Design*.

Statements expressed in mandatory terms in Notes to Figures and Tables are deemed to be requirements of this Standard.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out requirements for construction using Reinforced Autoclaved Aerated Concrete (Reinforced AAC) members complying with AS 5146.1 and AS 5146.2, including associated fixings, flashings and control joints. This Standard does not cover the construction of structures consisting of unreinforced autoclaved aerated concrete blocks.

NOTES:

1 The term 'Reinforced AAC structures' refers to buildings that incorporate 'Reinforced AAC members', such as walls, floors, roofs, beams and the like made of reinforced AAC. In this Standard, the term 'components' refers to items made from other materials, such as bolts, fixings, flashings and the like.

2 The forms of construction and detailing prescribed in Sections 2 and 3, together with Sections 4, 5, 6, 7 or 8 for the applications described therein, satisfy the requirements of AS 5146.1. However, they are not the only forms of construction or details capable of doing so. Other construction and details may be assessed separately for compliance with AS 5146.1.

3 This Standard should not be interpreted in a way that prevents the design and construction of structures that use alternative materials or methods of design or construction not specifically referred to herein. However, the design and construction of such structures are outside the scope of this Standard.

4 This Standard is based on the assumption that the design information is conveyed to the builders via comprehensive documentation such as drawings, details and specifications.

1.2 APPLICATION

For the applications stated herein, construction in accordance with this Standard satisfies the durability, fire resistance, serviceability, strength, stability and resistance to water penetration requirements of AS 5146.1 and AS 5146.2, and the Standards referenced therein.

Sections 4, 5, 6, 7 and 8 of this Standard provide details specific to durability, fire resistance, serviceability, strength, stability and resistance to water penetration requirements of Reinforced AAC members, and associated fixings, flashings and control joints, in all classes of building defined in the National Construction Code Volumes One and Two, except Class 10b and 10c structures.

The wind resistance of external walls provided in Section 3 are applicable only to buildings that incorporate a lining capable of resisting wind pressure exerted from inside the building, where the cavity between the lining and the cladding is sealed and where windows and doors in the external walls incorporate seals.