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DRAFT

Standard

Public comment information

Status

This document is a proposed New Zealand standard under the Standards and Accreditation Act 2015. Issued as a draft in this form, it provides the required statutory opportunity for consideration and comment by the bodies and persons having an interest in the standard.

Closing date for comments **30 June 2025**.

DRAFT

Committee representation

This standard was prepared by the P1838/39 Swimming Pools – Pre-Moulded Fibre-Reinforced Plastics Committee.

The committee consisted of representatives of the following nominating organisations:

Australian Fibreglass Manufacturers Group
Composites Australia
Engineering New Zealand
Master Pool Builders Group
Pool and Spa Association
Pool and Spa Covers Alliance Australasia
Swimming Pool & Spa Association Australia
University of Southern Queensland

Acknowledgement

Standards New Zealand gratefully acknowledges the contribution of time and expertise from all those involved in developing this standard.

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New Zealand Standard

**Swimming pools –
Premoulded fibre-
reinforced plastics –
Design and fabrication**

Superseding AS/NZS 1838:1994

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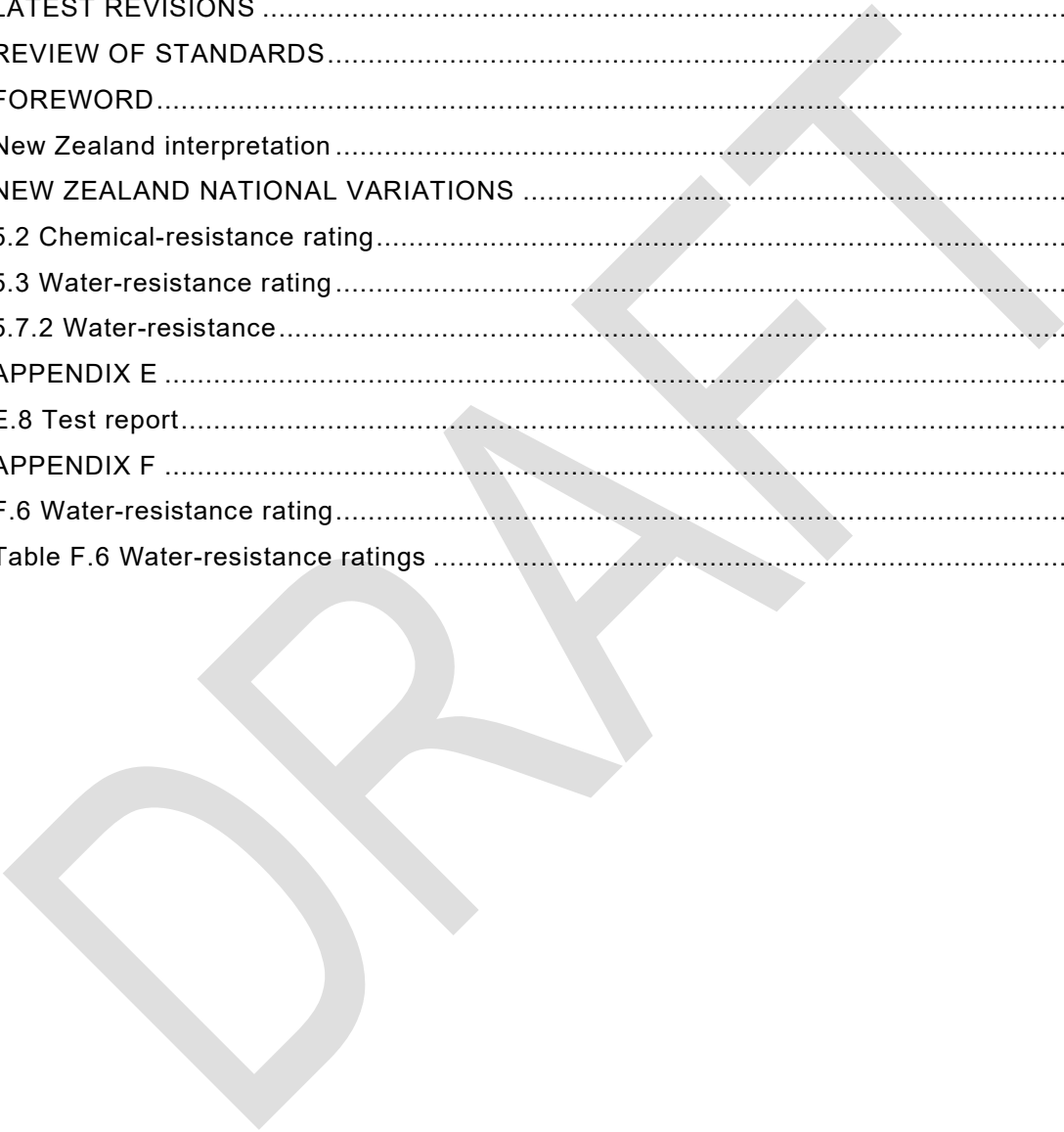
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REFERENCED DOCUMENTS

Reference is made in this document to the following:

LATEST REVISIONS

The users of this standard should ensure that their copies of the above-mentioned New Zealand standards are the latest revisions. Amendments to referenced New Zealand and joint Australian/New Zealand standards can be found on www.standards.govt.nz.

REVIEW OF STANDARDS

Suggestions for improvement of this standard will be welcomed. They should be sent to the National Manager, Standards New Zealand, PO Box 1473, Wellington 6140.

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FOREWORD

This standard was prepared by the P1838/39 Swimming Pools – Pre-Moulded Fibre-Reinforced Plastics Committee to supersede AS/NZS 1838:1994.

AS/NZS 1838:1994, *Swimming pools – Premoulded fibre-reinforced plastics – Design and fabrication* was revised as an Australian-only standard and published in 2021. Because the design and fabrication of fibreglass swimming pools and spas have increased in Aotearoa New Zealand, and many changes have taken place, since 1994, the Swimming Pool and Spa Association (SPASA) of Australia and New Zealand commissioned the work required to identify relevant national variations and adopt AS 1838:2021 as a New Zealand standard.

Manufacturers and consumers will benefit from access to this updated standard, which references up-to-date technologies and design considerations.

The objective of this document is to set out procedures for the design and fabrication of premoulded fibre-reinforced plastic (FRP) swimming pools. This document is a modified adoption of AS 1838:2021.

The terms 'normative' and 'informative' are used in standards to define the application of the appendices or annexes to which they apply. A 'normative' appendix or annex is an integral part of a standard, whereas an 'informative' appendix or annex is for information and guidance only.

New Zealand interpretation

The text of AS1838:2021 was approved as a New Zealand standard with the agreed national variations as given below, with instructions for preparing a consolidated version. AS1838:2021 is also reproduced here in full, with the affected clauses identified by a marginal bar.

NEW ZEALAND NATIONAL VARIATIONS

5.2 Chemical-resistance rating

Delete existing clause 5.2 and add new clause 5.2:

When tested in accordance with Appendix E, the average chemical-resistance rating for the two test specimens shall:

- (a) Not be greater than 3 for colour change;
- (b) Not be greater than 3 for loss of visible gloss.

If either (a) or (b) are greater than 3, the test specimens have failed.

5.3 Water-resistance rating

Delete existing clause 5.3 and add new clause 5.3:

When tested in accordance with Appendix F, the average water-resistance rating of the two test specimens shall not be greater than a rating of 3.

If any single test result rating for either fibre prominence, particulate dissolution, interlaminar blisters, cracks, pin-head blisters, and loss of visible gloss is greater than 3, the panel is deemed to have not met the requirements of this document.

5.7.2 Water-resistance

Add to the bottom of existing subclause 5.7.2:

If any single test result rating for either fibre prominence, particulate dissolution, interlaminar blisters, cracks, pin-head blisters, and loss of visible gloss is greater than 3, it is deemed to have not met the requirements of this document.

APPENDIX E

E.8 Test report

Change (d) to (e).

Add new (d): A failure remark if either colour change or loss of visible gloss is greater than 3.

APPENDIX F

F.6 Water-resistance rating

Delete (i) and (ii) and add:

- (i) Failed if the average rating at 240 h for fibre prominence, particulate dissolution, cracks, pinhead blisters, interlaminar blisters, and loss of visible gloss (if applicable) is greater than 2 and any one of these ratings is greater than 2;
- (ii) Failed if the average rating at 720 h for fibre prominence, particulate dissolution, cracks, pinhead blisters, interlaminar blisters, and loss of visible gloss (if applicable) is greater than 3, and any one of these ratings is greater than 3;
- (iii) If the gelcoat on the test specimens does not contain suspended particles, then particulate dissolution shall not be considered in the test results. If the gelcoat does contain suspended particles, then loss of visible gloss shall not be considered in the test results.

Table F.6 Water-resistance ratings

Change Note 3 to Note 4.

Add this new Note 3:

Note 3 – Particulate dissolution is not to be considered if the outer gelcoat layer in contact with the pool water does not contain suspended particles.

AS 1838:2021

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