

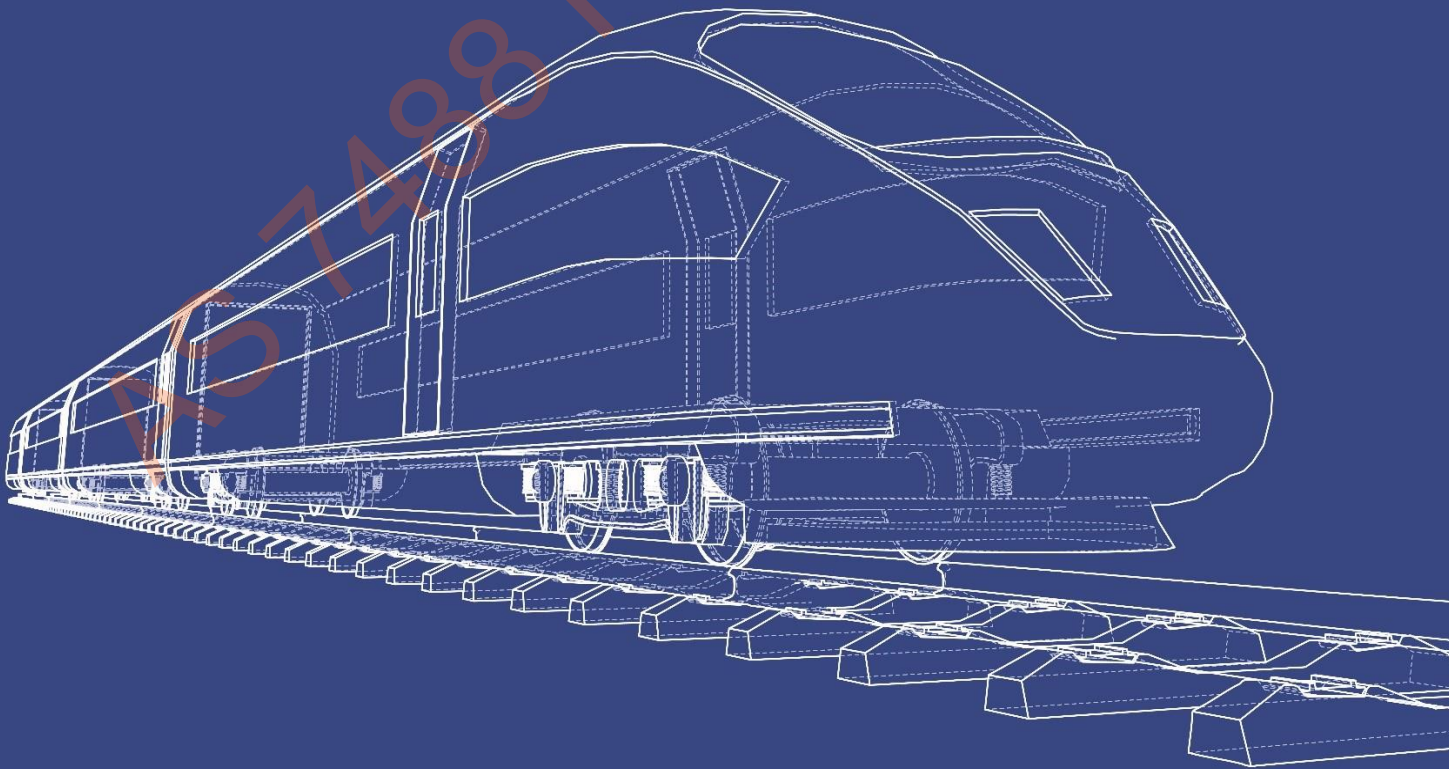
AS 7488:2023



Railway rolling stock - Locomotive and passenger vehicle flooring

RiSSB
RAIL INDUSTRY SAFETY AND STANDARDS BOARD

Rolling Stock Standard



This Australian Standard® AS 7488 Railway rolling stock - Locomotive and passenger vehicle flooring was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

Metro Trains Melbourne

Pacific National

Systra

TfNSW

Yarra Trams

The Standard was approved by the Development Group and the Rolling Stock Standing Committee in June, 2023. On June 21, 2023 the RISSB Board approved the Standard for release.

This standard was issued for public consultation and was independently reviewed before being approved.

Development of the Standard was undertaken in accordance with RISSB's accredited process. As part of the approval process, the Standing Committee verified that proper process was followed in developing the Standard.

RISSB wishes to acknowledge the positive contribution of subject matter experts in the development of this Standard. Their efforts ranged from membership of the Development Group through to individuals providing comment on a draft of the Standard during the open review.

I commend this Standard to the Australasian rail industry as it represents industry good practice and has been developed through a rigorous process.



Damian White
CEO
Rail Industry Safety and Standards Board

Keeping Standards up-to-date

Australian Standards developed by RISSB are living documents that reflect progress in science, technology and systems. To maintain their currency, Australian Standards developed by RISSB are periodically reviewed, and new editions published when required. Between editions, amendments may be issued. Australian Standards developed by RISSB could also be withdrawn.

It is important that readers assure themselves they are using a current Australian Standard developed by RISSB, which should include any amendments that have been issued since the Standard was published. Information about Australian Standards developed by RISSB, including amendments, can be found by visiting www.rissb.com.au.

RISSB welcomes suggestions for improvements and asks readers to notify us immediately of any apparent inaccuracies or ambiguities. Members are encouraged to use the change request feature of the RISSB website at: <http://www.rissb.com.au/products/>. Otherwise, please contact us via email at info@rissb.com.au or write to Rail Industry Safety and Standards Board, PO Box 518 Spring Hill Qld 4004, Australia.

Notice to users

This RISSB product has been developed using input from rail experts from across the rail industry and represents good practice for the industry. The reliance upon or manner of use of this RISSB product is the sole responsibility of the user, who is to assess whether it meets their organisation's operational environment and risk profile.

AS 7488:2023

Railway rolling stock - Locomotive and passenger vehicle flooring

Document details

First published as: AS 7488:2023

ISBN 978 1 76139 283 2

Document history

| Publication Version | Effective Date | Reason for and Extent of Change(s) |
|---------------------|----------------|------------------------------------|
| 2023 | 21/06/2023 | First publication |

Approval

| Name | Date |
|--|------------|
| Rail Industry Safety and Standards Board | 21/06/2023 |

Copyright

© RISSB

All rights are reserved. No part of this work can be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of RISSB, unless otherwise permitted under the Copyright Act 1968.

This Standard was prepared by the Rail Industry Safety and Standards Board (RISSB) Development Group AS 7488 Railway rolling stock - Locomotive and passenger vehicle flooring. Membership of this Development Group consisted of representatives from the organisations listed on the inside cover of this document.

This Standard supersedes AS 7522:2021 Section 5.6 'Slip and trip prevention.'

Objective

The objective of this Standard is to provide requirements, recommendations, and guidance for rolling stock flooring and establish industry Standards for these features.

Compliance

There are four types of provisions contained within Australian Standards developed by RISSB:

1. Requirements.
2. Recommendations.
3. Permissions.
4. Constraints.

Requirements – it is mandatory to follow all requirements to claim full compliance with the Standard. Requirements are identified within the text by the term 'shall'.

Recommendations – do not mention or exclude other possibilities but do offer the one that is preferred. Recommendations are identified within the text by the term 'should'.

Recommendations recognise that there could be limitations to the universal application of the control, i.e., the identified control is not able to be applied or other controls are more appropriate or better.

Permissions – conveys consent by providing an allowable option. Permissions are identified within the text by the term 'may'.

Constraints - provided by an external source such as legislation. Constraints are identified within the text by the term 'must'.

For compliance purposes, where a recommended control is not applied as written in the Standard, it could be incumbent on the adopter of the Standard to demonstrate their actual method of controlling the risk as part of their WHS or Rail Safety National Law obligations. Similarly, it could also be incumbent on an adopter of the Standard to demonstrate their method of controlling the risk to contracting entities or interfacing organisations where the risk may be shared.

RISSB Standards address known hazards within the railway industry. Hazards and clauses within this Standard that address those hazards, are listed in Appendix A

Contents

| | | |
|-----|--|----|
| 1 | Scope and general | 5 |
| 1.1 | Scope | 5 |
| 1.2 | Normative references | 5 |
| 1.3 | Terms and definitions | 6 |
| 2 | Floor coverings | 9 |
| 2.1 | Design | 9 |
| 2.2 | Glare and reflection | 9 |
| 2.3 | Electrostatic discharge | 9 |
| 2.4 | Durability | 10 |
| 2.5 | Vandalism resistance | 10 |
| 2.6 | Materials | 11 |
| 2.7 | Installation | 11 |
| 2.8 | Water and particulate penetration | 12 |
| 2.9 | Maintenance | 13 |
| 3 | Slip and trip prevention | 14 |
| 3.1 | Floor surface geometry | 14 |
| 3.2 | Slip resistance of floor surfaces | 14 |
| 3.3 | Passenger gangways | 15 |
| 3.4 | Ramps | 16 |
| 3.5 | Designated wet areas | 16 |
| 3.6 | Floors adjacent to entranceways | 16 |
| 3.7 | Hinged or removable floor panels | 17 |
| 4 | Accessibility | 17 |
| 4.1 | General | 17 |
| 4.2 | Visual contrast | 17 |
| 5 | Fire | 18 |
| 5.1 | General | 18 |
| 6 | Floor structures | 18 |
| 6.1 | General | 18 |
| 6.2 | Concentrated loads for floors | 18 |
| 6.3 | Protection from object penetration | 19 |
| 7 | Temporary floor surfaces | 19 |

Appendix Contents

| | | |
|------------|-----------------------|----|
| Appendix A | ARRM Risk Table | 20 |
| Appendix B | Bibliography | 21 |

1 Scope and general

1.1 Scope

The scope of this Standard provides the requirements for the design, installation, and maintenance of locomotive and passenger vehicle flooring for new and modified rolling stock.

The requirements mandated in this Standard do not apply to infrastructure maintenance rolling stock that travels at 25 km/h or less.

The Standard is not specifically intended to cover rolling stock used on cane railway and monorail networks, but items from this Standard may be applied to such systems as deemed appropriate by the relevant railway infrastructure manager (RIM).

This Standard supersedes slip and trip prevention requirements of AS 7522:2021.

1.2 Normative references

The following documents are referred to in the text in such a way that some or all their content constitutes requirements of this document:

- AS 1428.1 - Design for access and mobility, Part 1: General requirements for access - New building work
- AS 1657 - Fixed platforms, walkways, stairways and ladders - Design, construction and installation
- AS 3740 - Waterproofing of wet areas within residential buildings
- AS 4586 - Slip resistance classification of new pedestrian surface materials
- AS 7520.1 - Australian railway rolling stock - Body structural requirements - Part 1 – Locomotive
- AS 7520.3 - Australian Railway Rolling Stock - Body Structural Requirements Part 3 - Passenger Rolling Stock
- AS 7520.4 - Australian Railway Rolling Stock - Body Structural Requirements Part 4 - Infrastructure Maintenance
- AS 7522 - Access and Egress
- AS/NZS 3661.2 - Slip resistance of pedestrian surfaces: Guide to the reduction of slip hazards
- AS 7529.1 - Australian Railway Rolling Stock - Fire Safety - Locomotive
- AS 7529.3 - Australian Railway Rolling Stock - Fire Safety - Passenger
- AS 7529.4 - Australian Railway Rolling Stock - Fire Safety - Track Machines
- Disability Standards for Accessible Public Transport 2002 (Cth)
- EN 13553 - Resilient floor coverings - Polyvinyl chloride floor coverings for use in special wet areas – Specification
- EN 14041 - Resilient, textile and laminate floor coverings - Essential characteristics
- EN 1815 - Resilient and laminate floor coverings - Assessment of static electrical propensity
- ISO 10874 - Resilient, textile and laminate floor coverings — Classification