



## Brake Blocks



Rolling Stock Standard



This Australian Standard AS 7504 Brake Blocks was prepared by a Rail Industry Safety and Standards Board (RISSB) Development Group consisting of representatives from the following organisations:

Aurizon

Metro Trains

Pacific National

Queensland Rail

UGL

Marais Consulting

Wabtec

The Standard was approved by the Development Group and the Rolling Stock Standing Committee in February, 2018. On March 20, 2018 the RISSB Board approved the Standard for release.

This Standard was issued for public consultation and was subject to a stakeholder workshop. It was also independently validated 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.



**Paul Daly**

Chief Executive Officer

Rail Industry Safety and Standards Board

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# AS 7504:2018

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## Document control

### Document identification

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## 1 Introduction

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### 1.1 Purpose

This Standard describes the requirements for the manufacture and testing of medium and high-friction composite brake blocks to be installed on locomotives and rolling stock (locomotive hauled rolling stock, self-propelled passenger rolling stock, and infrastructure maintenance rolling stock).

The purpose of this Standard is to ensure that brake blocks fitted to locomotives and rolling stock provide reliable and consistent friction to the wheels to slow or stop vehicles within required distances without causing damage between the brake block and wheel and between the wheel and the rail.

### 1.2 Scope

This document applies to new, modified, and existing locomotive, hauled freight and passenger rolling stock, self-propelled passenger rolling stock and infrastructure maintenance rolling stock.

The document applies to the design, construction, and maintenance of friction material.

Operation of rolling stock in regard to network safe working rules and route standards is not covered.

This Standard applies to all rolling stock excluding light rail, cane railway, and monorail networks.

### 1.3 Compliance

There are two types of control contained within Australian Standards developed by RISSB:

- (a) Requirements.
- (b) Recommendations.

**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 may be limitations to the universal application of the control, i.e. the identified control may not be able to be applied or other controls may be appropriate / better.

For compliance purposes, where a recommended control is not applied as written in the standard it may 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 may 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.

Controls in RISSB standards address known railway hazards as included in an appendix.