

AUGUST, 1942

Inspector-in-Charge A.I.D.  
Commercial Steels & Forge Pty. Ltd.  
Lidcombe.

EMERGENCY STANDARD  
No. (E)D. 544—1942

544

STANDARDS ASSOCIATION OF AUSTRALIA.

Headquarters :

Science House, Gloucester and Essex Streets, Sydney.

AUSTRALIAN STANDARD SPECIFICATION FOR AIRCRAFT MATERIAL  
(Emergency Series)

MILD STEEL SHEETS (Suitable for Welding)  
(For Low Stressed Aircraft Parts)

*This standard forms one of a series prepared by the Standards Association of Australia at the request of Departments of the Commonwealth Government for use in relation to the supply of materials required for defence purposes. In appropriate cases these specifications will be reviewed for inclusion in the normal series of Australian standards.*

1. **Scope.** This specification applies to mild steel sheets of good commercial quality which may be used for unstressed or lightly stressed parts as approved by the Airworthiness Authority. Where a higher quality mild steel sheet is required, it is recommended that Australian Standard No. (E)2D. 501—1942 (British Standard No. 3S. 3 endorsed with amendment) be used.
2. **Chemical Composition.** The carbon content of the sheets shall not exceed 0.20%.
3. **Condition.** The sheets shall be delivered in the annealed or normalised conditions.
4. **Freedom from Defects.** The sheets shall be free from damage or defects.
5. **Margins of Manufacture.** Margins of manufacture, when required, shall be specified on the order.
6. **Mechanical Properties.** Each sheet shall comply with the following test :  
*Single Bend Test.*—A corner of each sheet shall withstand a bend through 180° over a radius equal to half the thickness of the sheet without showing signs of cracking.
7. **Rejection of Material.**
  - (a) Any sheet failing to meet the requirements of Clause 6 shall be rejected.
  - (b) Any material may be rejected for faults in manufacture notwithstanding that it has been passed previously for chemical composition and physical properties.
8. **Identification.**
  - (a) All sheets shall, unless otherwise agreed between the manufacturer and the purchaser, be colour identified in accordance with the provisions of A.S. No. (E)D. 500.\*
  - (b) In addition, all sheets shall be stamped on or near the colour bands in such a manner as will ensure identification of the sheets with this specification, with the cast and heat-treatment batch numbers and with the manufacturer.

This specification, prepared by the Special Committee on Aircraft Materials and Components, was approved on behalf of the Council of the Association on 21st July, 1942.

NOTE.

In order to keep abreast of progress in the industries concerned, Australian standards are subject to periodical review. Suggestions for improvement, addressed to the Headquarters of the Association, will be welcomed.

\* A.S. No. (E)D. 500, "Colour Identification of Metallic Materials for Aircraft", in course of preparation.

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