

## STANDARDS ASSOCIATION OF AUSTRALIA.

Headquarters :

Science House, Gloucester and Essex Streets, Sydney.

## AUSTRALIAN STANDARD SPECIFICATION FOR AIRCRAFT MATERIAL

(Emergency Series)

ALUMINIUM ALLOY (5% SILICON) WELDING  
WIRE

*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. **Quality of Material.** The aluminium used for making the alloy shall be of not less than 99% purity. No scrap shall be used other than that derived from the maker's own manufacture.

2. **Chemical Composition.**

(a) The chemical composition of the material shall be as follows :

Silicon	-	-	-	-	-	-	4.5 to 6.0%
Iron	-	-	-	-	-	-	not more than 1.0%
Copper	-	-	-	-	-	-	" " " 0.6%
Zinc	-	-	-	-	-	-	" " " 0.2%
Manganese	-	-	-	-	-	-	" " " 0.2%
Magnesium	-	-	-	-	-	-	" " " 0.02%
Aluminium	-	-	-	-	-	-	not less than 92.5%

(b) The complete analysis of every batch shall be supplied by the manufacturer.

3. **Welding Properties.** The wire shall work satisfactorily (in conjunction with a suitable flux) as a filler for gas welding.

4. **Freedom from Defects.** All wire shall be clean and smooth and free from injurious defects.

5. **Identification.** All wire shall be in the form of coils or straight lengths as specified on the order. Each coil or bundle shall be wired and tagged. The tag shall be marked with the specification number, the inspector's mark and the maker's mark or symbol.

*For the purposes of this specification as an Australian Standard the term "Inspector" shall be interpreted in the manner directed by the Australian Airworthiness Authority concerned.*

This Specification, prepared by the Special Committee on Aircraft Materials and Components, was approved on behalf of the Council of the Association on 1st August, 1940.

## 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.