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BRITISH STANDARD: AEROSPACE SERIES

SPECIFICATION FOR

COMMERCIALLY PURE TITANIUM SHEETS AND STRIPS

(Tensile strength 25-35 tonf/in^2)

(Suitable for welding)

NOTE 1. Other forms of this material of the same tensile strength are covered by the following British Standards:
TA.3. Bars for machining.
TA.4. Forging stock.
TA.5. Forgings.

NOTE 2. Where metric equivalents are stated, the figures in British units are to be regarded as the standard. The conversions are approximate. More accurate conversions should be based on the tables in BS 350, 'Conversion factors and tables'.

1. INSPECTION AND TESTING PROCEDURE

This British Standard shall be used in conjunction with Sections 1 and 5 of British Standard TA.100.

2. MANUFACTURE

The material shall be made from ingots produced, by consumable electrode melting, from materials having a total carbon content of not more than 0·08%.

3. CHEMICAL COMPOSITION

The chemical composition of the material shall be:

Element	Per cent	
	min.	max.
Iron	-	0·20
Hydrogen	-	0·0125
Titanium	-	**The remainder**

4. CONDITION

The material shall be supplied annealed and subequently descaled, or bright annealed.

5. HEAT TREATMENT

The material shall be annealed by heating uniformly at a temperature of 675 ± 25°C.

Price 3/- net

6. MECHANICAL PROPERTIES

6.1 Tensile test. The mechanical properties obtained from test pieces selected and prepared in accordance with the relevant requirements of British Standard TA. 100 shall be:

0·2% proof stress Sheets 0·0148 in (0·38 mm) thick and thicker only*.		**Tensile strength**				**Elongation on 2 in gauge length** Material 0·036 in (0·91 mm) thick and thicker only.
min.		**min.**		**max.**		**min.**
tonf/in²	hbar	tonf/in²	hbar	tonf/in²	hbar	%
19·0	29	25·0	39	35·0	54	22

*The value for similar strip in coil is expected to be not less than 15·0 tonf/in² (23 hbar).

NOTE. 1 hbar = 10^7 N/m².

6.2 Single bend test

Nominal thickness	Angle of bend	Radius of former
		nominal thickness x
Up to and including 0·072 in (1·83 mm)	180°	1½
Over 0·072 in up to and including 0·128 in (3·25 mm)	180°	2

This British Standard, having been approved by the Aerospace Industry Standards Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council of the Institution on 17th April, 1968.

The following BSI references relate to the work on this standard:
Committee reference ACE/49 Draft for comment 66/24956

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