MATERIAL SPECIFICATION

ISS	DATE	WRITTEN	APPROVED C.A.C.	APPROVED R.A.A.F.		SPEC. No.
-	MAY '54	KB	[illegible]	[illegible]	COPPER SHEET AND STRIP FOR ELECTRICAL PURPOSE. (Tough Pitch.)	CA.279.

1. This specification is satisfied by:-

British Standard General Specification . . . . . B.S.1432(latest issue)

B.S.1432 Condition.	C.A.C. No.
ANNEALED.	CA.279-1
HALF HARD.	CA.279-2.
HARD.	CA.279-3.

2. SIMILAR SPECIFICATIONS:

The following specifications (alloy, type or schedule numbers) are listed for information only and shall not be construed as acceptable alternatives unless all the requirements of the above specification are met and/or the numbers listed are shown on the relevant drawing or purchase order.

A.M.S. 4500 for CA.279-1; A.S.T.M. B.152-52, Type E.T.P. and Type F.R.T.P.

FOR INFORMATION ONLY.

(For official purposes consult latest issue of endorsed specification).

1. CHEMICAL COMPOSITION:

Element.	Per Cent. BS.1036. Electrolytic Tough Pitch High Conductivity Copper.	Per Cent. BS.1037. Fire Refined Tough Pitch High Conductivity Copper.
Copper (silver being counted as Copper)	99.90 min.	99.9 min.
Bismuth.	0.0010 max.	0.0025 max.
Lead.	0.005 max.	0.005 max.
Total impurities (excluding Oxygen and Silver)	0.03 max.	0.04 max.

2. MECHANICAL REQUIREMENTS:

2.1. Tensile Requirements:

Thickness ins	Temper	Up to and incl 12 in. wide.		Over 12in up to & including 24 ins. wide.		Over 24 in. wide.	
		U.T.S. t.s.i.	Elong % min.	UTS. t.s.i.	Elong % min.	UTS. t.s.i.	Elong % min.
Over 0.020 up to and including 0.104.	Annealed	13.5-16.0	30	13.5-16.0	35	13.5-16.0	35
	Half Hard	16.0 min.	15	16.0 min.	15	16.0 min.	15
	Hard.	21.0 min.	-	20.0 min.	-	18.5 min.	-
Over 0.104 up to and including 0.375	Annealed	13.5-16.0	35	13.5-16.0	35	13.5-16.0	35
	Half Hard.	16.0 min.	15	16.0-min.	15	16.0 min.	15
	Hard.	20.0 min.	-	18.5 min.	-	17.0 min.	-

2. MECHANICAL REQUIREMENTS: (cont'd.)

2.2. Bend Test Requirements.

Temper.	Across grain, i.e. axis of bend at right angles to direction of rolling.		With grain, i.e. axis of bend parallel to direction of rollin	
	Angle of Bend.	Radius of Bend.	Angle of Bend.	Radius of Bend.
Annealed.	180°	Close Bend.	180°	Close Bend.
Half-hard.	180°	$\frac{1}{2}$ t.	90°	$\frac{1}{2}$t.
Hard.	90°	t.	90°	2t.

t = thickness of material.

3. ELECTRICAL RESISTIVITY TEST.

(Optional Test: Consult endorsed specification for details.

4. GASSING OR HYDROGEN EMBRITTLEMENT TEST FOR OXYGEN FREE MATERIAL:

(Optional Test: Consult endorsed specification for details.)

Corrigendum.

Specification No.
CA. 279.

COPPER SHEET AND STRIP FOR ELECTRICAL PURPOSE.

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Delete "Tough Pitch" from title of specification.

Materials Engineer.