

	TITLE:	STD SPECIFICATION No: PE-SS-	
	STANDARD TECHNICAL SPECIFICATION FOR ALUMINIUM CLADDING SHEETS	VOLUME	
		SECTION	
		REV. NO. 0	DATE: 25.03.2014
		SHEET 1	OF 2

1.00.00 GENERAL

This specification covers the requirements for supply of Aluminium sheet for using it as cladding or protective covering over Thermal insulation.

2.00.00 CODES & STANDARDS

- 2.01.01 Manufacturing, physical & chemical properties, inspection and testing of Aluminium sheets to be supplied under this specification shall conform to the latest edition of the following codes and standards.
- 2.01.02 **IS:737** Specification for wrought aluminium and aluminium alloy sheet and strip for general engineering purposes / **ASTM B209-10** Standard Specification for Aluminium and Aluminium-Alloy Sheet and Plate.
- 2.01.03 **IS:504** Methods of chemical analysis of aluminium and its alloys / **ASTM E34**
- 2.01.04 **IS:1608** Metallic materials - Tensile testing at ambient temperature / **ASTM-B209-10 Table 2**
- 2.01.05 **IS:2676** Dimensions for wrought aluminium and aluminium alloys, sheet and strip/**ANSI H 35.2**
- 2.01.06 **IS:5052** Aluminium and its alloys - Temper designations. / **ANSI H35.1**

3.00.00 MATERIAL REQUIREMENTS:

3.01.00 FORM

The aluminium sheets to be supplied shall be in coil form and with **Mill Finish**

3.02.00 FREEDOM FROM DEFECTS

The material shall be sound and free from harmful defects for the intended application.

3.03.00 DESIGNATION AND CONDITION

The designation and the condition of the material shall be in line with **IS:737 Gr. 19000 H2 (AA1200H14) or ASTM B209 – 1060 Temper H-14**

3.04.00 CHEMICAL COMPOSITION

The material when analyzed as per IS 504 or any other instrumental/chemical method shall conform to the requirements as given in **Table 1 of IS:737 / Table 1 of ASTM B209-10**

3.05.00 MECHANICAL PROPERTIES

3.05.01 TENSILE TEST

The material when tested in accordance with **IS:1608 / ASTM B209-10** shall conform to the values given in **Table 2 of IS:737 / Table 2 of ASTM B209-10**

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		SHEET 2	OF 2

3.05.02 BEND TEST

When tested in accordance with the method prescribed in **IS:737 / ASTM B209-10**, the outer surface of the bend shall not show any visible crack.

4.00.00 DIMENSION AND TOLERANCES

4.01.00 The width of the aluminium sheet shall be **900 to 1500** mm. (uniform for the entire lot of supply). BHEL will confirm the same in the Purchase Orders.

4.02.00 Standard thicknesses of the aluminium sheet will be **0.56, 0.71, 0.91, 1.00, 1.22, 1.6 mm**. (The exact requirement of thickness and the quantity (weight in MT) will be indicated specifically in the Purchase Orders).

4.03.00 Tolerances on width & sheet thickness shall be as per **IS:2676 / ASTM B209-10**.

5.00.00 INSPECTION AND TESTING

5.01.00 The material sampling shall be done as given in **IS:737 / ASTM B209-10**.

5.02.00 The material to be supplied under this specification shall be of tested quality. Inspection and testing of Aluminium sheets shall be carried out as per the requirements of **IS:737 / ASTM B209-10**. Manufacturer's test certificate indicating all the chemical composition and mechanical properties shall be furnished.

5.03.00 All test certificates shall be submitted in ORIGINAL for BHEL / CUSTOMER review and based on the satisfactory test results, Material Despatch Clearance Certificate (MDCC) will be issued.

6.00.00 PACKING AND MARKING

6.01.00 The material will have to be packed in polythene-lined hessian and covered with metallic sheets. Wooden saddle supports for each coil to be provided and finally the coils needs to be strapped with metallic bands suitably. Material shall be packed in such a manner so as to prevent damage in ordinary handling & transport. ***The edges of the coils to be reinforced with metallic circular rings to avoid damage while handling.***

6.02.00 Each package shall contain only one size of material.

6.03.00 Each package / coil shall be suitably marked with a tag for identification as given below: (legibly written - preferably at two locations for easy identification).

- a) BHEL's Purchase order number
- b) Project Name
- c) Name of the manufacturer & Country of Origin
- d) Material grade & condition
- e) Sheet thickness
- f) Weight of the contents