

**I SCOPE :** This specification covers the requirements for  
 AL100- H24/AL1100-H24 grade Aluminum Alloys Sheet  
 components for High Power Busway. Environmental

**II REFERENCE STANDARD :** SBG Drg. # 45100-043.

**III MATERIAL PROPERTIES**

**a) Physical Properties: -**

- i) Material shall be clean, smooth, & free from burr, scratches, water logging, oil stains and harmful defects.
- ii) Ultimate Tensile Strength = 115~145 MPa p B
- iii) Yield Strength = >=50 MPa p B
- iv) Elongation = >=7 %
- v) Hardness = 42~47

**b) Chemical Composition:-**

- i) Cu = 0.05~0.2 %
- ii) Mg = 0.05 % Max.
- iii) Si & Fe = 0.95 % Max.
- iv) Zn = 0.1 % Max.
- v) Others = 0.15 % Max.
- vi) Al = 99.0 % Min.

**c) Electrical Properties:-**

- i) Conductivity - Min 59% IACS

**d) Dimensional Properties:-**


- 1) THICKNESS & TOLERANCE ON THICKNESS: 1.6 (+/-) 0.1mm
- 2) WIDTH & TOLERANCE ON OVERALL WIDTH : 1219.2 (+/-) 3.18mm
- 3) LENGTH & TOLERANCE ON LENGTH: 3276.6 (+/-) 3.96mm
- 4) SQUARENESS TOLERANCE 11,1MM (Refer drawing # 45100-043).
- 5) BOW: 4.75MM (Refer drawing # 45100-043)

**IV DESCRIPTION OF MANUFACTURING PROCESS:** Cold Drawing

**V TESTING METHODS.**

- a) Dimensional: To be done by suitable instruments.
- b) Conductivity: Conductivity shall be checked with conductivity meter
- c) Bend Test : The bend test shall be carried out on a sheet through specimen of suitable length. The specimen shall be bent through 90 degree and bend radius shall be minimum equal to the thickness of the bar. The

<b>Revision details:</b> Rev.01- Material grade was AL1200-H24.  Changed By: KNC      Checked By: TRS      Approved By: SRK Computerised document, Valid without signature	Prepared by KNC
	Approved by TRS

 INDIA	Department	Issued date	21/05/2011	Rev. no.	Mat. Spec. no.
	Design	Revised date	08.02.2013	01	MS/D/102
<b>Subject: SPECIFICATION FOR ALUMINIUM SHEET</b>					

specimen shall be deemed to have passed the test if there are no cracks observed on outer bend surface.

**VI MODE OF PACKING & SUPPLY**

Material shall be supplied in weather-proof packing. Provide polyethylene sheet/Paper between two aluminum sheets. Each package shall bear description, grade condition, batch no. and size of the material.

**JINDAL ALUMINIUM LIMITED**  
 (Rolling Mill Division)  
 K. A. D. B. Industrial Area  
 Yadehalli Village, Dabbespet  
 BANGALORE-562 111  
 PH: 080-27735051/27735003

*[Handwritten Signature]*  
 29/08/2013

<b>Revision details:</b> Rev.01- Material grade was AL1200-H24.  Changed By: KNC      Checked By: TRS      Approved By: SRK		Prepared by KNC
		Approved by TRS