

		CORPORATE STANDARD		AA0851413	
				Rev No.02	
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TECHNICAL DELIVERY CONDITIONS FOR ANODIZED ALUMINIUM RATING / NAME PLATES, MONOGRAMS					
1.0 GENERAL: This standard covers the Technical Delivery Conditions for Anodized Aluminum Plates manufactured and supplied to the following BHEL standard. AA7250501-Company Monogram Plate Anodized Aluminum Bilingual (with Boarder)					
2.0 FINISH AND OTHER TECHNICAL REQUIREMENTS:					
2.1 Finish: The finish of anodized portion of plates shall be natural and uniform on colour & texture.					
2.2 Anodising: The anodizing of plates shall have a thickness of 10 microns ±10% or as specified in the drawing.					
2.3 The background of the plate shall be etched and finished with black dye.					
2.4 Etching: The depth of etching shall be 100-600 microns. The Monograms, Rating plates etc., shall be free from burnt sports, cracks, scratches and peeling off coating etc. All sharp edges of raised portions shall be rounded.					
3.0 TEST REQUIREMENTS (TYPE TESTS):					
3.1 Anodising:					
3.1.1 Visual Appearance: The finish of the plates shall be uniform in colour and texture. The undyed areas shall be clear anodized and dyed areas shall be black. The coating shall be smooth, continuous and free from defects such as stains, blisters, cracks, etc.					
3.1.2 Test For Anodic Film: Current should not flow through the anodized parts, when an electrical connection from the positive bus bar and another from the negative is connected with a small lamp bulb in circuit through the anodized article. Any failure of the anodic film will at once, be apparent by illumination of the bulb.					
Revisions:As per Clause 25.04 of MOM of MRC-SMC+RP			APPROVED: INTERPLANT MATERIAL RATIONALISATION COMMITTEE – MRC(SMC+RP)		
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3.1.3 Thickness of anodic coating:

The thickness of anodic coating shall be within $\pm 10\%$ of the required thickness of 10 microns or as specified in the drawing.

The thickness shall be tested in accordance with IS:5523-Method of testing anodic coating on aluminium.

3.1.4 Test for sealing:

The anodized parts shall pass the test for sealing when tested in accordance with IS:5523.

3.1.5 Resistance to corrosion:

The anodized parts shall pass the test for the 6 hours salt spray test when tested in Accordance with IS:9844.

3.1.6 Resistance to leaching: The anodized parts shall pass the test for resistance to leaching when tested in accordance with IS:1868.

3.1.7 Resistance to tropical cycle: The anodized plates shall not be affected by five tropical test cycles.

One cycle being defined as follows: The plates shall be placed in a humidity chamber at $27\pm 5^\circ\text{C}$. The temperature shall then be increased to $45\pm 2^\circ\text{C}$, the relative humidity being kept in between 90% to 100%. These Conditions shall be maintained for 12 hours. The chamber shall then be allowed to cool to $27\pm 5^\circ\text{C}$ and saturation shall be allowed to occur. The lower temperature shall be maintained for the remainder of the 24 hour cycle and this time shall be not less than 5 hours.

3.1.8 TYPE TEST CERTIFICATE:

Type test certificate for above type tests shall be submitted by the vendor along with the Offer.

3.1.9 MARKING AND PACKING:

Drawing No. and size of the rating plate standard No., Supplier Name and Trade mark, shall be indicated at the back of each Monogram, Rating plate, etc.

Before packing and dispatch each rating plate shall be applied with transparent synthetic adhesive film. This can be applied with brush dipping or spraying.

Each rating plate shall be suitably packed in polythene covers (500 microns thickness, min.) so as to avoid any damage to the finish during transit/storing, etc.

4.0 REFERED STANDARDS (Latest Publications including Amendments):

- 1) IS:1868 2) IS:5523 3) IS:9844