



PURCHASE SPECIFICATION FOR FERRITIC STAINLESS STEEL SHEETS FOR SCR APPLICATION

ISSUE NO : 06

DOC.NO: SCR-D-RM-001

REV : 00 OCT 2018

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1.0 GENERAL:

The sheet shall typically conform to the latest version of ASTM A 240M, TYPE 430 and equivalent Indian standards to comply with the following additional requirements.

2.0 APPLICATION:

Stainless Steel Sheet is intended for using as a base materials for coating ceramic mass.

3.0 CONDITION OF DELIVERY:

Cold rolled, solution annealed and descaled (Finish number 2B), Suitable for deep drawing process.

Sheets shall be supplied in coil for as specified in BHEL order.

Sheets shall be flat and the edges cleanly sheared and truly squared to the specified dimensions.

Oils used for anti-corrosion measures should be free from pungent smell and should be non-hazardous in nature.

4.0 DIMENSION AND TOLERANCES:

Material to be manufactured with thickness of 0.25mm or 0.3 mm (as mentioned in BHEL tender) and width of max. 750 mm. Actual width will be specified in BHEL tender. tolerance is as given below

Parameter	Nominal Value (mm)	Tolerance on the nominal value (mm)
Thickness	Upto 0.30	+0.01 / - 0.01
Width	Upto 750mm	+1.00 / - 1.00

Out of the square tolerance: 1 percent of the width

Camber: Camber is the greatest deviation of an edge from a straight line, the measurement being taken on the concave side with a straight line. Camber tolerance is 10 mm in any 5000 mm length

5.0 CHEMICAL COMPOSITION:

C	Si	Mn	Ni	Cr	S	P
≤ 0.12	≤ 1.00	≤ 1.0	≤ 0.75	16.0-18.0	≤ 0.03	≤ 0.04

6.0 MECHANICAL PROPERTIES:

HARDNESS (HV)	Yield Strength(N/mm ²)	UTS min (N/mm ²)	% Elongation
< 200	> 205	> 450	> 22

7.0 TEST SAMPLES: One bend and one hardness test shall be carried out from each lot of 25MT or part thereof, per melt per consignment. Chemical analysis to be carried out one sample per melt per consignment.

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Issued By

Prepared By

Checked By

Approved By

SCR PROD
GROUP

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8.0 TEST CERTIFICATES:

Three copies of test certificates shall be supplied along with the following information:

BHEL References:

SCR-D-RM-002, ASTM A 240M (Type 430) and equivalent Indian standards
BHEL order No.

Supplier's references:

Name:
Identification No.
TC No.
Delivery Challan details
Melt No.
Size and Quantity
Process of manufacture:
Details of heat treatment:

Results of Tests:

Dimensional inspection
Results of chemical analysis, mechanical tests

9.0 Packing and Marking:

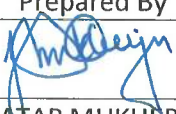
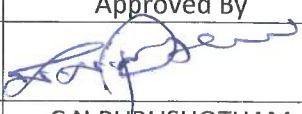
PACKING:

Sheet to be supplied in coiled form with 3000 kg per coil (maximum) and suitably packed to prevent damage during transit. Details of packaging and marking are as given below: However, other better methods of packing may be considered which shall be indicated in the techno-commercial offer for BHEL's acceptance.

- Internal diameter of the coils shall be 500 mm $\pm$ 20 mm.
- Coils shall be protected to prevent damage and rusting during transit. Sheet shall be horizontally packed (The cylindrical axis should be horizontal to the ground).
- Annular protection board shall be placed at both the ends of the coil.
- Coil should also be interleaved with anti-rust waterproof paper in the full length of coil.
- Coil then be covered by polyethylene sheet or anti-rust water-proof paper and the ends sealed properly.
- A galvanized sheet shall be wrapped on the outside of the coil on both ends of the coil. Care shall be taken to ensure that the ends extends sufficiently over the diameter of the coil.

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- g. A galvanized sheet shall be warped on the inside of the coil. Care shall be taken that it overlaps sufficiently over the ends mentioned in (e) above.
- h. Steel ring made from thick angle shall be placed on the inner and outer diameter at both ends of the coil. The rings shall be held in position at either ends by at least four points by steel bands.
- i. The coil should then be mounted on wooden skids held together by steel bands. Wooden skids must have provision to house the steel for tight fit and to avoid slippage. Wooden wedges of suitable of matching radius to be placed firmly butting the coil and anchored to avoid rolling of the coil.
- j. Coils shall be sufficiently tight-wound to prevent deformation of the inner hole to an extent that would preclude their mounting on a mandrel appropriate to the ordered internal diameter.
- k. Each package should indicate the sling position for lifting without damage. Its preferable to fix a suitable size of steel angle at the position where the sling rope is to be fitted to avoid slippage/damage/breakage of the wooden skid.

MARKING:

A label shall be securely attached to each coil and shall bear the following information

- a. DOC.NO: SCR-D-RM-001
- b. BHEL order No.
- c. Supplier name and identification no.
- d. Melt No.
- e. Size and weight

10. Pre-Qualification requirement:

- a. The vendor should be a manufacturer of the supplied Stainless sheet product or an authorised dealer of the same.
- b. The manufacturer should have in-house facility of Electric Arc Furnace with requisite facilities for refining and casting stainless steel, heat treatment, hot rolling and cold rolling.
- c. The manufacturer also have in-house laboratories for metallurgical and mechanical properties assessment. The manufacturer also have quality management system certified for ISO 9001:2015
- d. In case the vendor is authorised dealer of multiple manufacturer, vendor shall ensure that supply of entire order is from one manufacturer only.
- e. The vendor shall provide the traceability for materials supplied upto to the melt number of the original steel supplier – vendors to confirm
- f. For imports, the suppliers/manufacturers shall comply with the Quality Control Order issued by the Govt. Of India with regard to relevant BIS certification and registration.

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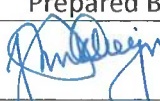
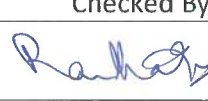
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Revision Record

Revision No.	Revision Record
00	First Issue

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