



CORPORATE PURCHASING SPECIFICATION

AA10401

Rev No.16

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CARBON STEEL PLATES - INTERMEDIATE AND HIGH TEMPERATURE

1.0 GENERAL:

This specification governs the quality requirements of Carbon Steel Plates for Intermediate and High temperature service.

2.0 APPLICATION:

For intermediate and high temperature applications requiring welding, cutting and cold and hot flanging.

3.0 CONDITION OF DELIVERY:

Plates above 12mm thick shall be supplied in the normalized or equivalent condition. Plates of 25mm and above thickness shall be ultrasonically tested.

4.0 COMPLIANCE WITH NATIONAL/INTERNATIONAL STANDARDS:

4.1 Material shall comply with the requirements of IS: 2002 – 2009, Grade 2. Additionally impact testing shall be carried out.

4.2 Material offered as per EN 10028 – 2:2009, Grade: P265 GH +N (Material number 1.0425) is also acceptable.

5.0 DIMENSIONS AND TOLERANCES:

5.1 Sizes:

Material shall be supplied to the dimensions specified on BHEL order.

5.2 Tolerances:

The tolerance on hot rolled plates shall comply with IS/ISO 7452 Class C or EN 10029, Class C.

6.0 MANUFACTURE:

Material shall be manufactured from killed steel having a Carbon Equivalent of 0.44 max (melt analysed).

7.0 HEAT TREATMENT:

Plates above 12mm thick shall be normalized. Normalizing can be replaced by equivalent temperature control during and after hot rolling.

Revisions: Specification brought in line with National/International standard

APPROVED:
INTERPLANT MATERIAL RATIONALISATION
COMMITTEE – MRC(S&GPS)

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**CORPORATE PURCHASING
SPECIFICATION****8.0 TEST SAMPLES:**

As per IS: 2002 or EN 10028 – 2 as applicable.

9.0 ULTRASONIC TEST:

Plates 25mm and above are to be ultrasonically tested as per IS: 4225 / ASTM A435 /ASTM A578, Level B.

10.0 FREEDOM FROM DEFECTS:

Plates shall be cleanly rolled to the dimensions specified. The finished material shall be free from excessive segregation of impurities and cracks, surface flaws, laminations, rough, jagged & imperfect edges and internal & surface defects.

Slight scale or shell may, however, be removed by such means as chisel, file, buff or shot blast or other suitable means provided that the thickness of the material is nowhere reduced below the specified thickness. Hammer dressing, patching or welding of defects is prohibited.

11.0 TEST CERTIFICATES:

Unless otherwise specified on the order, three copies of test certificates shall be supplied.

In addition, the supplier shall ensure to enclose one copy of the test certificate along with their dispatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following information:

AA10401 Rev.16 / IS: 2002 Gr.2 or EN 10028 – 2, Gr: P265 GH+N

BHEL Order No.

Melt no, Size & Quantity,

Batch no. with heat treatment details,

Results of Chemical analysis, Mechanical including Bend/Impact tests & Ultrasonic tests.

Supplier's name, Identification No, TC No, Signature of competent authority, etc.

12.0 PACKING AND MARKING:

Plates shall be transported suitably to avoid damage during transit.

For plates below 10 mm thick, each pile (preferably of 16 plates) and each plate 10mm thick & above shall be marked with the suppliers Identification No, Melt No. AA10401, BHEL order no., Suppliers name, Size & weight, on any one corner and encircled with paint preferably of white colour.

13.0 REFERRED STANDARDS (Latest Publications Including Amendments):

- 1) IS/ISO 7452 2) EN 10029 3) IS: 4225 4) ASTM A435 5) ASTM A578