 Ranipet	Technical Delivery Condition (TDC) For CARBON STEELBRIGHT BARS	Doc Ref:	TDC:RTE:256
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1.0 Scope:

This TDC covers the requirements of bright bars of diameters 8mm, 40mm & 50 mm for use in ESPs. The size, length, Quantity as per the purchase order.

2.0 Material Specification, and Other Details :

2.1 Bright Bars Diameter 40mm and 50 mm:

Raw Material will be as per IS 2062 E 250 Grade B - Fully killed or equivalent The bright bar shall be manufactured from rolled bars as per requirements of IS:9550 for dimensions and surface conditions Class 4

2.2 Bright bars Diameter 8mm:

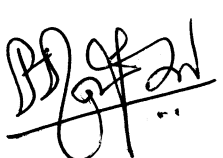
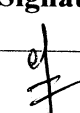
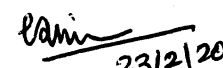
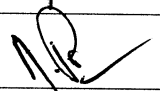

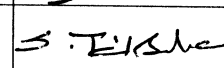
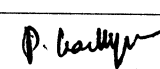
Raw Material shall be IS:2062 E 250 Grade B - Fully killed – or equivalent. In addition it has to meet the requirements of bend test(bend test as per IS 2062 2006, with internal bend dia min. 2T) The bright bar shall be manufactured from rolled bars as per requirements of IS:9550 for dimensions and surface conditions Class 4

3.0 Mechanical properties for Bright bars Diameter 40mm and 50mm:


- 3.1 Tensile strength : Not less than 410MPa
- 3.2 Yield strength :Not less than 250 MPa
- 3.3 Percentage of elongation, A : 23 Min
- 3.4 Hardness(Brinell) : To be tested in accordance with IS 1500, the material shall show a Brinell hardness shall be 180 HB Maximum.

4.0 Length shall be as per Enquiry for the 40mm and 50mm Diameter bright bars.

- 4.1 Length for 8mm Dia shall be 3mtrs.
- 4.2 Length tolerance of (+) 15mm and (-) 0 mm.

Prepared by	Reviewed by	Signature	Approved by
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	R.Pandian Matl.plng.		
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5.0 Marking and Packing :

5.1 For Bars of 40 and 50mm. the melt number, specification and maker's emblem Shall be hard stamped on all bars. These bars shall be supplied loose with rust Preventive oil coating for protection during storage and transit.
All bright bars, Both sides at each end of the bar by white colour painting throughout the cross section.

5.2 The bars of 8mm shall be given a coat of rust preventive oil, bundled and Strapped together using bituminized Hessian cloth (or) thick black sheets and GI Strips to avoid rusting in storage and transit along with a tag containing melt Number, specification and makers emblem. The bundles shall be restricted to Maximum of 500 kg. size for easy handling.

6.0 Test Certificate :

6.1 Detailed correlated Test certificates to be submitted along with the supply, for the tests conducted as required in the respective specification and in this TDC.

6.2 BHEL reserves the right to carry out tests and to reject the items wherever non Conformance to the TDC/IS specification is observed in the supply.

03	23022011	Material specification changed in clause 2.1&2.2 Also in clause 2.2 tensile properties removed and retained bend test property. Mechanical properties values mentioned in clause 3.0 Length tolerance added in clause 4.0 Colour coading in clause 5.1 Packing weight enhanced in clause 5.2
02	150502	Totally reviewed &reissued.
01	270101	a)TDC:RTG:069/Rev 01 merged with TDC:RTE:256-Totaal reviewed and reissued. b) TDC:RTG:069 deleted from the master list
00	290196	Original issue
Rev.No.	Date	Revision Details

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