

TECHNICAL DELIVERY CONDITIONS

Project : Mumbai Metro cars - L2 & L7
Item : Structural Steel Rod to Standard ASTM A588 Gr. A

SI No.	Part No.	Item Description
1	R109308030	Ø30mm Steel rod, to spec. ASTM A588 Gr.A of L=3000mm (+10,-0)mm length tolerance maintaining perpendicularity on both ends.

1. Square structural steel rod shall be supplied conforming to **current edition of ASTM A588 Gr. A**.
A. The firm shall carry out the following test & submit all test certificates along with each supplies.

Sl. No.	Test	Reference Test Standard
1	Raw Material Analysis a) Chemical Composition	ASTM A588 Gr. A(Clause-5)
2	Product Analysis a) Chemical Composition	ASTM A588 Gr. A(Clause-5)
3	Mechanical Tests	ASTM A588 Gr. A(Clause-6)
a	Tensile Strength & Elongation	ASTM A588 Gr. A(Clause-6)
b	Impact Test (1 set /heat /Size)	Charpy V notch, test Temp: -18°C. required impact energy 40 joules for full size specimen
C	Drop weight Test	ASTM A 6/A 6M (S6)
4	Non destructive test (NDT) 100% (Ultrasonic Test)	ASTM E213 or ASTM E570

2. The firm shall be a original manufacturer of structural steel rod.
3. General requirement for delivery of steel rod shall confirm to ASTM A 6/A 6M(clause-3).
4. Micro structure: Grain size shall be fine (ASTM Number-5 or more) conform to ASTM A588 Gr. A (Clause-4).
5. Atmospheric corrosion resistance index shall be calculated as per ASTM G101 conform to ASTM A588 Gr. A (Clause-5.3 shall be 6.0 or higher).
6. Steel rod shall be cleaned & packed safely (in order to avoid damage during transit) and shall be supplied without any dents and wrinkles.
7. Firm will be evaluated technically / assessed by BEML or customer before technical bid clearance. This evaluation includes raw material manufacturing or sourcing facility, heat treatment facility, all lab test facilities, manufacturing facility, NDT facility & other quality inspection facilities.
8. The supplier shall submit confirmation for the above points along with their technical offer.



GR-2