



सत्यमेव जयते

भारत सरकार - रेल मंत्रालय
अनुसंधान अभिकल्प और मानक संगठन

Government of India - Ministry of Railways
RESEARCH DESIGNS & STANDARDS ORGANISATION

DOCUMENT NO. TDG 0009, Rev. '0'

**ITEM SPECIFIC GUIDELINES FOR MANUFACTURE OF
GLUED INSULATED RAIL JOINTS**

Price: Rs. 300/-

गुणवत्ता आश्वासन सिविल निदेशालय
अनुसंधान अभिकल्प और मानक संगठन
मानक नगर, लखनऊ -226011

QUALITY ASSURANCE CIVIL DIRECTORATE
RESEARCH DESIGNS & STANDARDS ORGANISATION
MANAK NAGAR, LUCKNOW – 226011

**Scheduled of Technical Requirements
for manufacture of Glued Insulated Rail Joints**

- 1) **Requirements:** The vendors seeking approval shall comply all the under mentioned requirements.
 - a) **General and manufacturing facilities:** Adequate covered area should be available for installation of all plants & requirements including testing equipment.
 - b) **Material:** The requirement of material for fabrication of glued joints is given in Annexure-B of the manual for Glued Insulated Rail Joints. These shall be procured from RDSO approved suppliers only.
 - c) **Specification:** The material shall be procured as per the specification given in Annexure-C of the Manual for Glued Insulated Rail joints.
 - d) **Equipments:** The equipments required for fabrication of Glued Insulated Rail joints are to be procured as per the list of equipments given in Annexure-E of the Manual for Glued Insulated Rail Joints.
 - e) The jigs for assembly of joints and a testing frame of pullout strength testing complete with 1 No. 200 T or 2 Nos. of 100 T capacity hydraulic jacks shall be manufactured as per guidelines shown in fig. 2 & 3 of the Manual for Glued Insulated Rail Joints.
- 2) **Fabrication /Assembly:** Fabrication /Assembly of joints is to be done as per clause 2.1 and 2.3 of the Manual for Glued Insulated Rail Joints.
- 3) **Maintenance of Records:** records in respect of fabrication of Glued Joints should be maintained in the Performa as given in Annexure-G of the Manual for Glued Insulated Rail Joints.

PROFORMA

(To be filled in by manufacture of Glued Insulated Rail joints in triplicate)

1. Name & Address of the firm:

2. Covered Area:

3. Uncovered Area:

4. Power Availability:
General allotted Capacity
Stand By Generator Capacity

5. Curing Tank:

Size:

Over ground / Underground
(Strike which is not applicable)

6. Source of supply of raw material:

Steel Fish Plates confirming to IRS/T-1

HTS Bolts & Nuts

Glass cloth carrier

Glue (Resin & Hardner)
(Resin & Hardener shall be of the one firm)

Washers

Release Agents

7. LIST OF ESSENTIAL EQUIPMENTS REQUIRED FOR FABRICATION AND TESTING OF GLUED JOINTS:

a)	Rail cutting machine Hex saw/circular saw	1 No
b)	Drilling Grinder	1 Set
c)	Electric Grinder	2 Nos.
d)	Protective Goggles	2 Nos.
e)	Sand blasting equipment with 10HP compressor	1 No
f)	Jigs for assembly of joint	4 Nos. (minimum)
g)	Pull out strength testing Jig complete with 200 T capacity Hydraulic Jack & Pressure Gauge duly calibrated	1 No.
h)	Straight edge 1 meter long with 10 mm notch at center	1 No.
i)	Steel Brushes (Stiff)	2 Nos.
j)	Steel brush (Round) attachment of electric grinder	2 Nos.
k)	Steel pans about 30 cm diameter for mixing Glue	2 Nos.
l)	Split washer rollers	2 Nos.
m)	Receptacle (to clean tools etc.)	1 No
n)	Torque wrench 105 Kg-m capacity	1 No.
o)	Pair of scissors for cutting of glass-cloth	1 No.
p)	Files (round & flat)	1 set
q)	Spanner/adjustable spanners suitable for tightening Of HTS bolts & nuts	1 set
r)	Weighting balance with set of suitable weights	1 set
s)	Chamfering tool with bolts & nuts as per manual	2 sets (min.)
t)	Templates of fish plates duly approved by RDSO	2 sets
u)	Vernier Calipers, Steel Scales, Steel Tapes of various sizes, Inner & Outer caliper and Filler gauges in mm	1 set
v)	Megger 100 Volt DC for testing insulation resistance in dry condition	1 No.
w)	An Ammeter capable of measuring current up to micron amperes for insulation resistance in wet condition.	1 No.

- x) 200 Tones capacity Proving Ring duly calibrated
by NPL (compression) 1 No.
- 8. Manpower / management:
 - a) Managerial Staff:
 - b) Workmen:
 - (i) High-skilled:
 - (ii) Semi-skilled:
 - (iii) Un-skilled:
- 9. Experience in the manufacture of glued insulated rail joints:
- 10. Details of works done for last 3 years:
- 11. Total annual average turnover of the firm:
- 12. Any other details which the firm consider relevant to be given regarding manufacture of glued joints.

13. Declaration:

- 13.1 We do hereby declare that the above that the above particulars are correct and no discrepancy shall be found during actual investigation before and during execution of order on our firm.
- 13.2 Any change in the plant and machinery and change of place of office and of works site shall be brought to the notice of RDSO for clearance and approval.
- 13.3 We also declare that our concern has not been black listed by Railway, Railway Board / RDSO for business with the Railways.
- 13.4 We hereby undertake that all our equipments for manufacturing and testing as listed above shall be maintained in good working order at all times.

Signature

Name in full of Signing Authority

Status in the Firm,

Place :

Date :

Stamp of the firm.