

ISO9001:2008	Document No: QC-G-7.1-9	Version No: 2.0	Date Effective: 01.10.2020
Document Title: Item Specific guideline & Schedule of Technical Requirements for Vendor approval for manufacture and supply of Glue used in fabrication of Glued Insulated Rail Joints			



## RESEARCH DESIGNS & STANDARDS ORGANIZATION

Manaknagar, Lucknow – 226011

**Document No: QC-G-7.1-9**

**Document Title : Item Specific guideline & Schedule of Technical Requirements for Vendor approval for manufacture and supply of Glued insulated Rail Joints**

### 1.0 Amendment History:

S. No.	Amendment Date	Version	Reasons for Amendment
1.	01.12.2001	0.0	First issue under new documentation system
2.	01.10.2020	1.0	<b>List of plant &amp; machineries and list of testing &amp; measuring instruments added</b>

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## 2.0 Purpose:

This guideline covers all technical requirement for manufacture and supply of Glued Insulated Rail Joints used for vendor registration/ quality audit of vendor. This guideline replaces the provisions of earlier guidelines issued on the subject i.e. QC-G-7.1-9 rev '0'

## 3.0 Scope of Application

This shall be applicable for initial capability assessment, quality audit, up-gradation of vendors and maintaining their approved list. In case of any variation between the procedure/provision given in the work instruction and that in this 'Item-specific guidelines', the later shall prevail. The competent authority wherever referred to in this document shall mean Executive Director, Quality Assurance Civil Dte.

## 4.0 Procedure / Details

Procedure/details is annexed.

## 5.0 Referenced Documents

S.No.	Document Name	Document No.
1.	Manual for Glued Insulated Rail Joints	Nil

## 6.0 Referenced Documents of External Origin

None.

## 7.0 Associated Records

None.

## 8.0 Responsibility and Authority

Activity	Responsible	Approver	Supporting	Consulted	Informed
Creation, maintenance of this document	Director/QAC	ED/QAC	DD/XEN/AIE/ARO	Track Design Dte. & M&C Dte.	All vendors/ concerned through website
Compliance of directives contained in this document	DD/XEN/AIE/ARO	Director/QAC	Respective staff	-	-
Requirement of deviation from this directive	Director/QAC	ED/QAC	DD/XEN/AIE/ARO	Track Design Dte. & M&C Dte.	All vendors/ concerned through website

## 9.0 Abbreviations

QA	Quality Assurance.
QAC	Quality Assurance Civil.
ED/QA	Executive Director/Quality Assurance Civil
RDSO	Research Designs & Standards Organisation
DD	Dy. Director
XEN	Executive Engineer
AIE	Assistant Inspecting Engineer.
ARO	Assistant Research Officer

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## 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 and uncovered area should not less than 600 square meter for new vendors) may 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) Equipment: 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.
- 4) For assessment of the Glued Insulated Rail Joints, four sample set of Glued Insulated Rail Joints (either of 60kg/52kg rail section) of the design for which firm is approved shall be required to be manufactured for inspection.

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## *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 & Harder) (Resin & Hardener shall be of the one firm)	
Washers	
Release Agents	

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

SN	Description	Min. facilities / Equipment considered essential	Actual facilities/ Equipments available	Remarks
1.	2	3	4	5
a)	Gantry Crane Facilities ( Minimum Capacity 2T)	1 No		
b)	Rail cutting machine Hex saw/circular saw	1 No.		
c)	Drilling Grinder	1 No.		
d)	Electric Grinder	2 No.		
e)	Protective Goggles	2 No.		
f)	Sand blasting equipment with 10HP compressor	1 No		
g)	Jigs for assembly of joint	4 No. (min.)		
h)	Pull out strength testing Jig complete with 200 T capacity Hydraulic Jack & Pressure Gauge	1 No.		
i)	Straight edge 1 meter long with 10 mm notch	1 No.		
j)	Steel Brushes (Stiff)	2 Nos.		
k)	Steel pans about 30 cm diameter for mixing	2 Nos.		
l)	Steel brush (Round) attachment of electric	2 Nos.		
m)	Split washer rollers	2 Nos.		
n)	Receptacle (to clean tools etc.)	1 Nos.		
o)	Torque wrench 105 Kg-m capacity	1 No.		
p)	Pair of scissors for cutting of glass-cloth	1 No.		
q)	Files (round & flat)	1 set		
r)	Spanner/adjustable spanners suitable for tightening Of HTS bolts & nuts	1 set		
s)	Weighting balance with set of suitable weights	1 set		
t)	Chamfering tool with bolts & nuts as per	2 sets (min.)		
u)	Templates of fish plates duly approved by RDSO	2 sets		
v)	Vernier Calipers, Steel Scales, Steel Tapes of various sizes, Inner & Outer caliper and Filler gauges in mm	1 set		
w)	Meggar 100 Volt DC for testing resistance in dry condition insulation	1 No.		
x)	An Ammeter capable of measuring current up to micron amperes for insulation resistance in wet	1 No.		
y)	200 Tones capacity Proving Ring duly calibrated by NPL (compression)			

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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.
- 13.5 We hereby declare that the contents and the instructions of latest "**ISO Apex Documents for Vendors Approval**" effective from ..... have been read and understood by us and our firm shall agree abide by all the stipulations laid therein.

Signature

Name in full of Signing Authority

Status in the Firm,

Place :

Date :

Stamp of the firm.

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