

Ref:	NR/L2/SIGELP/27423
Issue:	1
Date:	06/09/2015
Compliance date:	06/09/2015

Level 2

Product Specification for Connectors and Joints for Signalling Power Cables

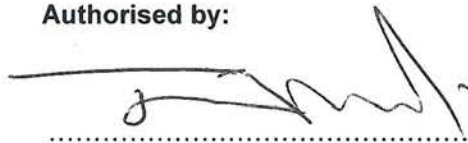
Endorsement and Authorisation

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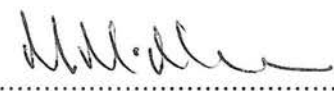


Jeremy Morling, Signalling Steering Group Chair



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Accepted for issue by:



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User information

This Network Rail standard contains colour-coding according to the following Red–Amber–Green classification.

Red requirements – No variations, could stop the railway

- **Red requirements shall** always be complied with and achieved.
- Red requirements shall be presented in a red box **with the word “shall” or expressed as a direct instruction**.
- Accountability for the efficacy of red requirements lies with the Professional Head/Standard Owner.
- Red requirements are monitored for compliance.
- Corrective actions shall be enforced if deviations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Amber requirements – Controlled variations, approved risk analysis and mitigation

- **Amber requirements shall** be complied with unless variation has been approved in advance.
- Amber requirements shall be presented with an amber sidebar **and with the word “shall” or expressed as a direct instruction**.
- Accountability for the efficacy of these requirements lies with the Professional Head/Standard Owner, or their nominated Delegated Authority.
- Amber requirements are monitored for compliance.
- Variations **may** be permitted. Variations are approved by the Standard Owner or through existing Delegated Authority arrangements.
- Corrective actions shall be enforced if **non-approved** variations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Green – Guidance

- Guidance is based on good practice. Guidance represents supporting information to help achieve **Red** and **Amber** requirements.
- Guidance shall be presented with a dotted green sidebar **and with the word “should” (usually in notes) or as a direct instruction**.
- Guidance is **not mandatory** and is not monitored for compliance.
- Alternative solutions may be used. Alternative solutions do not need to be formally approved.
- Decisions made by a competent person to use alternative solutions should be backed up by appropriate evidence or documentation.

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Issue record

Issue	Date	Comments
1	September 2015	First issue

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 6th September 2015.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 3 (Option Selection) to continue to comply with the issue of any relevant Network Rail standards current when GRIP Stage 3 was completed and not to comply with requirements contained herein, unless stipulated otherwise in the scope of this standard.

Reference documentation

BS 1872	Specification for electroplated coatings of tin
BS 5467+A3	Electric cables. Thermosetting armoured insulated cables for voltages of 600/1000 V and 1900/3300 V
BS 6346	Electric cables. PVC insulated, armoured cables for voltages of 600/1000 V and 1900/3300 V
BS 6724+A3	Electric cables. Thermosetting insulated, armoured cables for voltages of 600/1000 V and 1900/3300 V, having low emission of smoke and corrosive gases when affected by fire
BS 7609+A2	Code of practice for installation and inspection of uninsulated compression and mechanical connectors for power cables with copper or aluminium conductors
BS 7933-1	Electric cables. Accessories. Material characterisation. Fingerprinting and type tests for resinous compounds
BS EN 50267-2-1	Common test methods for cables under fire conditions. Tests on gases evolved during combustion of materials from cables. Procedures. Determination of the amount of halogen acid gas. Determination of the amount of halogen acid gas
BS EN 50393	Test methods and requirements for accessories for use on distribution cables of rated voltage 0.6/1.0 (1.2) kV
BS EN 61238-1	Compression and mechanical connectors for power cables for rated voltages up to 36 kV ($U_m = 42$ kV). Test methods and requirements
BS EN ISO 15620	Welding. Friction welding of metallic materials
NR/L2/RSE/100/05	Product introduction and change (formerly NR/L2/EBM/029)

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