

Product conformance & traceability

AS/NZS 4671 Methods of Demonstrating Compliance

AS/NZS 4671 'Steel Reinforcing Materials' - Appendix A sets out the various different methods a manufacturer can demonstrate compliance with the Standard.

These methods are described in the Standard as:

- a) Assessment by means of statistical sampling
- b) The use of a product certification scheme
- c) Assurance using the acceptability of the supplier's quality system
- d) Other such means proposed by the manufacturer or supplier and acceptable to the customer

ARC use a combination of all these methods by compiling and analysing long term quality (LTQ) data, third party product certification by ACRS and operating to a SAI Global accredited quality management system. Customised Quality plans can also be negotiated with customers where required.

N Grade Straight & Processed Bar

N Grade reinforcing steel bar sourced by ARC is AS/NZS 4671 compliant and third party certified by ACRS.

When Bar is cut to length or bent into specific shapes (processed) then all required dimensional, geometrical & mechanical testing is completed as specified in AS/NZS 4671.

Processing of bar is conducted in accordance with the requirements of AS3600 'Concrete Structures' ie. Bending pin diameters, shapes, angle and length tolerances.

Bar being processed is traceable from the originating steel mill through to ARC despatching the final product via the Heat number.

Indented, Deformed & Round 500L Grade coiled wire

L Grade coiled wire manufactured and/or supplied by ARC is AS/NZS 4671 compliant and third party certified by ACRS.

Wire manufactured by ARC is tested onsite in a NATA accredited laboratory for geometrical & mechanical properties to ensure compliance with AS/NZS 4671 specifications.

Individually tagged coils are traceable to the originating production batch. The feed material used in each production batch is traceable to Heat number.

D500L Reinforcing Mesh

L Grade reinforcing mesh manufactured and/or supplied by ARC is AS/NZS 4671 compliant and third party certified by ACRS.

Reinforcing mesh manufactured by ARC is tested onsite in a NATA accredited laboratory for weld shear strength & the wire mechanical properties to ensure compliance with AS/NZS 4671 specifications.

Individually tagged mesh bundles are traceable to the originating production batch. The wire used in the mesh batch is traceable to originating wire production batch. The feed materials used in the wire production batch is then traceable to Heat number.

Steel Heat Numbers – Via steel maker

Each heat of steel produces approximately 80 to 100 tonnes of steel. A heat number is allocated and the chemical composition of the steel is recorded against this number. Each heat is cast into billets which is then rolled into various products.

For hot rolled products such as straight and coiled 500N Grade bar (finished product) the mechanical properties are tested each batch and the results documented against the heat number.

For coiled rod (wire feed material) only the chemical analysis is documented as this is not the finished product (Mechanical properties are tested once transformed to wire/mesh).