



Independent Third Party
Australasian Standards
Certification & Verification of
Reinforcing, Prestressing &
Structural Steels
Compliance

WHY ACRS STRUCTURAL STEEL CERTIFICATES GIVE **ASSURANCE OF COMPLIANCE**

Some specifiers have traditionally asked for Steel mill certificates from their steel supplier and requested details of heat or batch identification for traceability.

With the introduction in 2011 of independent third-party product certification for structural steels to AS/NZS Standards in addition to reinforcing and pre-stressing steels, by the Australasian Certification Authority for Reinforcing and Structural Steels (ACRS), there is now a credible option, which further enhances and complements the value and credibility of steel mill certificates for structural steels.

ACRS Structural Steel Certificates of compliance cover the following Australian and New Zealand Standards:

- 1.** Cold-formed structural steel hollow section manufacture to AS/NZS 1163;
- 2.** Hot-rolled steel plate, floor plate and slab manufacture to AS/NZS 3678 and/or AS/NZS 1594;
- 3.** Hot-rolled steel bar and section manufacture to AS/NZS 3679.1;
- 4.** Structural steel I-Section manufacture to AS/NZS 3679.2;

THREE MEASURES FOR ASSURING COMPLIANCE

There are three effective measures for assuring the compliance of construction steel products, each of which has its place in the quest to reduce the risk of failures in structures

1. Company reputation (brands/tags/markings);
2. Mill test certificates, and;
3. ACRS, independent third party certificates,

Major companies highlight through their brands that they have capabilities and processes in place to ensure that their products meet and even exceed the relevant Australian and New Zealand Standards.

Companies' assurances of product compliance to appropriate Standards are supported by their own issue of steel mill certificates, and lastly by the fact that many in addition submit to ACRS independent third party validation of their products' compliance to the appropriate steel standards.

When specifying steel, it is important to understand that there are four points of time at which the product compliance can and should be assured and verified. These are:

1. Before the contract for supply is awarded;
2. At the time of manufacture;
3. At the time of delivery, and
4. Post-construction (Future validation of construction, e.g. structural alterations).

First, an ACRS certificate of product compliance can be specified up-front, early in the project. The ACRS certificate demonstrates that the steel manufacturer has been checked for compliance by ACRS at the steel mill, and separate sampling has been undertaken by ACRS own assessors, thereby demonstrating that the manufacturer has an independently verified history of supplying steel complying to AS/NZS Standards requirements.

Second, ACRS undertakes continuous, quarterly monitoring of production data to ensure on-going product compliance throughout the year. ACRS certified suppliers therefore give an added assurance of product compliance during your project.

Third, at every delivery the purchaser should match the ACRS certificate of compliance to the steel mill certificates for the steel supplied, to confirm that the sizes and grades meet the project specifications, and that the delivery is not a mix of compliant and non-compliant materials. (Note that a project may utilise 2 or 3 grades of steel and various section

sizes, so checking the correct grades and sizes on site and on the mill certificates is necessary as well as checking the ACRS certificate covers the supplying mills.)

However if the up-front ACRS specification is not in place, then there could be delays to the project at fabrication & delivery stage while product sourcing and conformity assessment of delivered steels is verified.

Fourthly, and lastly, should structural alterations be required at a future date, original mill certificates may be hard to obtain and it may be difficult to verify that materials met particular standards, without expensive and time consuming onsite sampling and testing. Knowing that the steel delivered to the project was from ACRS certified suppliers means that future designers and specifiers can simply take the design parameters current at the time of design.

ACRS certificates give a continuing level of assurance of compliance to Australian & New Zealand Standards for steel manufacture over and above that provided by Steel Mill certificates alone, which are snapshots of compliance of the steel of the batches listed.

ACRS provides a specification mechanism up front at engineer/contract time, prior to purchase and fabrication of structural steel, at which time the valid Mill test certificate provides a point in time verification that the batch of steel complies with the appropriate Standard.

REDUCE AND MITIGATE RISK ACROSS THE SUPPLY CHAIN

A project can have many participants: Consulting engineer, quantity surveyor, steel distributor, steel fabricator, steel installer, project certifier, project builder, and project owner, to name just some of those involved in a successful project.

They all need simple tools to control the risk of failure. ACRS mitigates risks for each player in the project supply chain, through design, fabricate, install, own and maintain stages.

It is important that all the players in the supply chain understand the benefits of ACRS, and the fact that it provides a pool of compliant companies with ACRS certificates that can be used for specification, prior to mill test certificates providing point in time assurance, and then supported again by ACRS Long Term Compliance testing and record monitoring in order to provide continuity of verification of compliance.

Check the three stages of product compliance assurance

- ✓ **Specify compliance up front before tender stage – specify an ACRS certified steel manufacturer**
- ✓ **Check compliance at fabrication stage – check mill certificate and the ACRS certificate for currency and validity**
- ✓ **Ensure continuity of compliant production – ACRS checks three-monthly long-term compliance data**

WHAT IS ACRS?

The Australasian Certification Authority for Reinforcing and Structural Steels Ltd, “ACRS” was formed in May 2001 to provide independent, third party certification of steel construction materials manufactured to Australian Standards.

The ACRS Scheme is based upon well-established and widely accepted overseas practice ACRS is compliant with International Standard ISO/IEC Guide 17065 – General requirements for bodies operating product certification systems.

ACRS offers certification to Australian and New Zealand Standards to any manufacturer or supplier without regard for commercial affiliation or geographic location. ACRS currently certifies over 150 manufacturing and processing sites operated by 45 companies in 15 countries, to an increasing number of Australian, New Zealand and ATIC steel standards.

ACRS proven systems of corporate governance, stemming from its constitution and scheme regulations, have given it a solid reputation in industry, both in Australia and overseas, as an ethically-based, expert, not-for-profit organisation dedicated to the provision of fair, yet rigorous and credible assessment of suppliers’ claims of compliance to Australian Standards.

THE ACRS CERTIFICATION PROCESS

Every three months ACRS expert assessors collect and analyse test data for products manufactured to Australian/New Zealand Standards during that period at that location and in addition visit and assess every certified firm supplying materials to those Standards at least once each year.

ACRS certificates are only valid for twelve months to ensure consistent compliance, and may be updated through the year if product ranges change.

Specifiers and customers can be confident that

rigorous independent, third-party certification meets their requirements for verifying that the materials they order meet AS/NZS Standards.

Having an independent, expert body review the necessary test data on a regular basis provides the highest level of confidence available in the compliance of materials supplied to Australian/ New Zealand Standards.

ADVANTAGES OF ACRS CERTIFICATES

- 1. Easier** – ACRS verifies that the manufacturer has met all the relevant requirements of the Australian & New Zealand Standards for the products listed on the certificate.
- 2. Quicker** – compliance checks have already been done. ACRS checks all production to the assessed Standards from that certified location;
- 3. Safer** – the checks have been done by a recognised, competent body on an annual basis and with 3 monthly checks on production data.

So unless you understand the data on the test certificate and every compliance detail behind it for both manufacturing and processing, how do you know the material passes all requirements?

ACRS GOVERNANCE AND MEMBER COMPANIES

ACRS takes its certification responsibility extremely seriously. The Authority is governed by an independent Board of Directors selected to deliver an appropriate balance of industry experience, technical rigour and management & fiscal control. The board of directors is separate from the member companies.

ACRS member companies comprise a balance of representative organisations of the three major stakeholder groups - Specifiers and designers, customers and users, and manufacturers and suppliers.

The following member organisations support and endorse the ACRS Scheme:

- Australasian Wire Industry Association (AWIA)
- Australian Constructors Association (ACA)
- Australian Institute of Building (AIB)
- Australian Institute of Building Surveyors (AIBS)
- Australian Steel Institute (ASI)
- Austroads (including NZTA)
- Building Officials Institute of New Zealand (BOINZ)
- Bureau of Steel Manufacturers of Australia (BOSMA)
- Concrete Institute of Australia (CIA)
- Consult Australia (formerly, ACEA)
- Engineers, Australia
- Heavy Engineering Research Association of NZ (HERA)
- Housing Industry Association (HIA)
- Master Builders Association (MBA)
- National Precast Concrete Association Australia (NPCAA)
- Post Tensioning Institute of Australia (PTIA)
- Steel Reinforcement Institute of Australia (SRIA)
- The University of Melbourne
- Welding Technology Institute of Australia

WHO CAN HOLD AN ACRS CERTIFICATE AND FOR WHAT PRODUCTS OR PROCESSES?

Upon satisfactory assessment of a supplier by ACRS, an ACRS Certificate of Product Compliance is issued covering the Approved Materials (that is, those materials sold as complying with Australian Standards) manufactured by, or processed by the supplier.

The scope of the certificate described in the Certificate of Product Compliance is highly significant and important for customers and users. Therefore the scope of each ACRS certificate is very clearly defined and limited.

It is a condition of ACRS certification that all Approved Materials supplied by the supplier are declared to ACRS and noted on the supplier's certificate.

All products that are eligible for certification and all supplier locations at which these products are manufactured or processed or supplied from must be certified.

WHAT IS SHOWN ON AN ACRS CERTIFICATE?

Each ACRS Certificate of Product Compliance states:

- a) The name of the supplier to which the certificate applies, with its company logo;
- b) The supplier facility to which the successful assessment applies;
- c) The products and/or services covered by the Approval, including applicable Australian
- d) Standards and/or ACRS assessment schedule;
- e) The dates of validity of the certificate;
- f) The date of first certification of the supplier location.

WHAT DO YOU NEED TO CHECK?

When verifying that a product is ACRS approved, it is important to ensure that the product type, process and size are included on the certificate and that the certificate is of the relevant type. Your supplier must have a valid ACRS certificate, and if you receive a product that is not listed on the supplier's certificate, and/or that of their upstream supplier, that product is not ACRS certified.



For further information please contact ACRS:

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