SCI PRODUCT CERTIFICATION

MODULAR BUILDING UNITS

This product accreditation scheme covers self-supporting, three-dimensional modular building units, typically constructed from light gauge cold rolled steel profiles. The scope covers the inclusion of hot finished structural members, profiled decking, concrete, boarding and ancillary components. The product is the module which is produced at a manufacturing facility – other SCI schemes cover the assembly of multiple modules into complete buildings.

Accredited SCI Product Certification

SCI are accredited by UKAS to ISO IEC 17065:2012 to provide product conformity certification. SCI's current accreditation covers self-supporting modular building units (modules) comprising walls, floors and ceilings.

UKAS PRODUCT CERTIFICATION 10414

SCI's product certification is recognised by warranty providers (such as NHBC) as partially fulfilling their technical requirements. This means that gaining SCI certification for a product should automatically satisfy most requirements, since the SCI scheme has been developed to achieve wide recognition. SCI's scheme has been developed with input from manufacturers, clients, specifiers and regulators.

ISO IEC 17065 schemes

Certification to ISO IEC 17065 requires that products meet specified requirements, which are contained within the Technical Scheme Document (TSD).

These requirements must be met – there is no opportunity for ambiguity or opinion. The manufacturer is required to submit comprehensive evidence to demonstrate that their product meets the requirements of the TSD, in every respect. This evidence is rigorously and impartially assessed by competent SCI staff. The manufacturer's production facility is then subject to an audit to verify the fabrication and construction processes to manufacture the product.

Subject to a satisfactory assessment and audit, SCI will issue a certificate declaring the detailed product performance, used to demonstrate that the product is suitable for its intended use, meeting all the specified requirements. Regular surveillance reviews and audits are undertaken to confirm that the product remains in conformity with the TSD's requirements.

Typical submissions

The evidence required for assessment includes:

- A product description, and scope
- A system manual
- A quality plan
- Design methodology
- Test reports
- Material specifications and certificates
- Factory production control documentation
- Comprehensive typical details

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The technical scheme document specifying the product requirements for modular units is available from the SCI. The following sections indicate the requirements, which follow the Basic Requirements for Construction Works (BCRW). Product requirements conform to the Building Regulations (as applicable in the various parts of the UK), British and European Standards and recommended best practice.

Mechanical resistance and stability – BRCW1

The module must be designed (to a recognised code) with adequate safety against structural collapse and unacceptable deformation. This requirement demands evidence of design criteria, structural analysis and verification of resistance.

The certificate will typically declare the load-carrying resistance of the module including floor loading and wind loading.

Safety in case of fire – BRCW2

The module must be designed in such a way that (when assembled into a complete building) the resistance is adequate for a specific period of time and the spread of fire and smoke is limited. This will generally involve verification at elevated temperatures, together with evidence of the performance of components and assemblies subject to fire. Supporting evidence is likely to include relevant fire test reports.

The certificate will declare the fire resistance period for which the module is adequate.

Hygiene, health and environment – BCRW 3

This requirement primarily concerns the risk of condensation and secondly that the materials used are not susceptible to damp. The requirements will generally be satisfied with a thermal analysis, material specifications and construction details.

The certificate will declare the assessed thermal performance.

Safety in use – BCRW 4

Depending on the specified use and construction details, walls and floors of modules may be required to have resistance against impact loads. Test evidence will be required to demonstrate the construction meets any specified duty grade for a wall or an impact class for a floor.

The certificate will specify the duty grade of walls and impact class of floors, where relevant.

Protection against noise – BCRW 5

Walls and floors (in the completed building) must be demonstrated to provide adequate resistance against airborne sound and sound due to impact. Although this primarily relates to a completed building, in some cases, internal walls must meet specified requirements.

The certificate will declare the performance of internal walls, if relevant.

Sustainable use of natural resources – BCRW 7

Modules must be designed and built in such a way that the use of natural resources is sustainable, which demands that materials used must have appropriate durability. The evidence required will generally comprise material specifications and typical construction details.

The assessed service life will be declared on the certificate.

Factory production control (FPC)

To assure product conformity, TSD005 requires that comprehensive documentation of the FPC system must be submitted for review prior to undertaking an audit of the manufacturing facility. The FPC system will include detailed procedures, details of inspections and quality control processes.

For further enquiries please contact SCI Product Certification on:
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SCI Steel Knowledge