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BAR GUIDANCE NOTE 2/15 - CE MARKING OF STEEL REINFORCEMENT

There is some confusion amongst designers, consultants and specifiers as to whether steel reinforcement requires a CE mark. As there is currently no harmonised European Standard (hEN) it does not. What the sector has is a quality certification scheme that in many respects is a more rigorous check than CE marking.

Since 1st July 2013, under the Construction Products Regulation (CPR), it became mandatory for manufacturers to apply CE marking to any of their products that are covered by a hEN or a European Assessment Document (EDA). The CPR replaced the Construction Products Directive (CPD) under which affixing the CE marking was voluntary. CE marking is used to demonstrate a presumption of conformity by the manufacturer or importer. It is not a quality or safety mark and is primarily designed as a regulatory mark to ensure freedom of movement of goods throughout Europe.

It is expected that steel reinforcement will eventually be covered by a harmonised European standard. This standard, EN 10080, is currently at draft stage and is not predicted to facilitate CE marking before 2018 at the eariliest. Until then as there is no hEN there is no CE marking necessary for reinforcing steel, reinforcing fabric or lattice girders. Furthermore, there are no plans for cut and bent reinforcement to be subject to a hEN as it is not included in the European Commission's mandate. It should be noted, however, that some reinforcement accessories are subject to CE marking and designers and specifiers are advised to check accordingly.

As stated above, CE marking is a regulatory mark not a quality mark. For quality assurance, there is the well-established Steel for the Reinforcement of Concrete (SRC) scheme developed and managed by the UK Certification Authority for Reinforcing Steels (CARES).

The SRC scheme covers all stages in the supply chain from the receipt of raw materials, the manufacture and processing of the steel through to the delivery to the customer. As a quality scheme, it offers a more robust certification route than CE marking. This is underlined by the comparison table below:



CARES SRC scheme

Reinforcement from a CARES approved supplier is marked for identification of strength, ductility and manufacturer. This enables assurance of correct reinforcement supply by visual inspection without the need for further testing.

CARES product certification provides full traceability by addressing all the following activities: steelmaking; casting; rolling; delivery to processor/fabricator, processing/fabrication; delivery to construction site.

The CARES SRC scheme requires that the reinforcing bar/coil manufacturer issues a works test certificate for each batch for strict traceability to production conditions for each cast of steel.

Each company in the supply chain approved by CARES must demonstrate the following: compliance with the product standard; management system complying with ISO 9001; proper process control.

CARES product certification requires the analysis of three different sets of tests results: As Witnessed; As Independently Tested and As Produced. This enables independent checking of the accuracy of the manufacturer's test methods and consistency of production.

CE MARK

CE marking requires product strength and ductility related information. The generic strength and ductility should be rolled onto the bar itself as described in the product standard - interpretation of which is subject to the manufacturer. CE mark offers no obvious strength or ductility indication.

CE marking is only concerned with the product as it comes from the steel mill.

CE marking requires only a declaration of performance (DOP) by the manufacturer with no test result certification. The proposed European standard for reinforcing steel does not require traceability to production conditions for each cast of steel.

CE marking does not require process control assessment. The European standard requires only Factory Production Control (FPC) rather than compliance with ISO 9001.

CE marking requires initial type testing and surveillance testing by the manufacturer but no statistical analysis of test results. There is no requirement for independent testing.



The voluntary CARES SRC scheme offers an internationally recognised assurance of product quality that is not matched by the mandatory CE marking. For quality assurance, designers and specifiers are advised to require CARES certification for steel reinforcement.

When in the future CE marking becomes a requirement for steel reinforcement, the sector will be able to offer the best of both worlds: quality assurance supported by product conformity.

Notes:

- 1. For more details on the CARES SRC scheme see: https://www.ukcares.com/certification/steel-for-the-reinforcement-of-concrete.
- 2. A list of manufacturers and suppliers holding current certificates of approval is published on the CARES website: www.ukcares.com
- 3. All members of the British Association of Reinforcement are CARES approved. For the list of BAR members visit: www.uk-bar.org

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