

CARES and Post Tensioning



CARES Approved Installation

- Approval of post-tensioning contractor, method statements, post-tensioning kit, materials.
- Trained installers.
- Verified compliance of post-tensioning kit and components with standards and codes.
- Traceability of post-tensioning kit components: anchorages, strand/bar, duct and grout.
- Maintenance of testing and installation records.

or High Risk

- Non CARES approved post-tensioning contractor may result in incorrect installation of post-tensioning system.
- Non-CARES post-tension kits or materials may not meet standard requirements.
- Failure of post tensioned system or compromised structural performance and reduced durability due to incorrect or incompatible components or unsatisfactory grouting.
- No traceability with difficulties to proper recourse on non conformity or failure.

Why take the RISK?



For further information about CARES and an up-to-date list of manufacturers and suppliers holding CARES certification please consult the CARES website: www.ukcares.com

Alternatively, contact the office:-
UK Certification Authority for Reinforcing Steels,
Pembroke House, 21 Pembroke Road,
Sevenoaks, Kent TN13 1XR

Telephone - 01732 450000
Fax - 01732 455917
E-mail - general@ukcares.com



Confidence in Post-Tensioning Construction

CARES is a UK based, internationally recognised certification body fully, accredited and operating independently for the benefit of all key sectors of the supply chain for construction materials and products. The key products covered by CARES are reinforcing steels, prestressing steels and associated products, for their manufacture, processing and stocking and distribution including installation against defined product standards and design codes. The CARES certification schemes ensure that products supplied to the construction industry consistently satisfy the customer's requirements.

Importance of using an approved installer.

The installation of post-tensioning systems is a highly specialised operation requiring a CARES approved post-tensioning contractor. CARES approved post-tensioning contractors are regularly audited at head office and on site to ensure installation procedures are adequate, trained post-tensioning personnel are used and that a qualified post-tensioning kit is being installed.

Failure to use a CARES approved post-tensioning contractor could result dangers to site personnel or compromised structural performance because of:

- a) Incorrectly installed post-tensioning system; under stressed, over stressed or inaccurate profiles or alignment.
- b) Failure of post-tensioning kit components.
- c) Use of an unqualified post tensioning kit of unknown performance or incompatible components.
- d) Incorrectly grouted or ungrouted tendons.

Compliance with product standards and codes.

All products covered by CARES schemes are tested against relevant product standards or specifications. Strand complies with BS5896 (or prEN10138), high tensile bar complies with BS4486 (or prEN10138), post-tensioning anchors comply with BSEN13391 and post-tensioning kits comply with ETAG013.

Importance of correct materials and products.

Post-tensioning system components carry large forces (over 20tonnes per strand) and any weakness due to substandard or incorrect components can be catastrophic.

Risks due to poor grout and incorrect grouting.

The grout or filling material protects the tendon from corrosion and provides a bond with the surrounding concrete. Failure to fully grout tendons with the correct materials can significantly reduce their corrosion resistance and compromise the durability of the structure.

Traceability of people and products.

The CARES scheme requires traceability of post-tensioning kit components to a location within the structure and the use of personnel whose training has been verified by CARES.

Monitoring of Scheme performance.

The CARES certification schemes require that records of complaints relating to compliance of the product made against approved firms are properly addressed and that details of these complaints are returned to CARES at regular intervals. Further action may be taken by CARES against the approved firm if required. CARES acts as a point of reference when the performance of one of its approved firms casts doubts on the effectiveness of the relevant certification scheme.

CARES list of approved firms.

CARES regularly updates a list of approved firms which is maintained on the CARES website (www.ukcares.com). Each firm's entry gives the scope of the CARES certification as well as other key details of the firm. Occasionally firms make spurious claims regarding CARES approval. This may relate to approval of the firm itself or of the products and services for which they might hold approval. If there are any doubts concerning the approval status of a firm, then the CARES list of approved firms should be consulted or alternatively the CARES office should be contacted for verification.

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