

STRUCTURAL RENOVATIONS

Repair • Reinstate • Restore

TECHNICAL ADVICE

BS1504 – Concrete Repair

BS 1504 – The Protection and Repair of Concrete Structures - has now been fully implemented throughout the EU. For the first time in the UK there are now standards for products to be used as well as for the design, testing and for site application.



The standard is made up of the following 10 parts: -

1. *General Scope and Definitions*
2. *Surface protection systems*
3. *Structural and non structural repair*
4. *Structural bonding*
5. *Concrete injection*
6. *Grouting to anchor reinforcement or to fill external voids*
7. *Reinforcement corrosion prevention*
8. *Quality control & evaluation of conformity*
9. *General principles for the use of products and systems*
10. *Application of products & systems and quality control of the works*

Part 1, General Scope and Definitions, is exactly what it says it is and is there to assist all parties involved in the repair contract from the client, designer/specifier through to the materials manufacturer and the specialist contractor.

Part 9, General principles for the use of products and systems, is where the

client and designer/specifier will find the 11 principals they need to prepare the specification. This will take into account the client's future plans for the structure, the testing regime to establish the cause of the damage and any latent defects and consideration of a variety of alternative repair methods to comply with CDM Regulations. It is essential, therefore, that the client and designer/specifier must have an understanding of the application of materials that is covered in part 10.

Parts 2 through to 8 are where the manufacturer will find the principals for design of their products. These include categorising materials by their properties such as compressive strengths, bond strengths, shrinkage and carbon diffusion resistance. It is from these parts that the designer/specifier will select the product requirements for the works.

Part 10 sets out all the site procedures for carrying out the repair programme. For the specialist contractor compliance is straightforward and those holding the QA standard ISO 9000 will have site procedures in place that will ensure that they are also BS 1504 compliant.



The use of this standard will ensure a mutual understanding of the process, a good client relationship and a successful repair of good quality.