

Some FAQ's

Q. Does galvanized reinforcement need to be handled differently to ordinary bare steel reinforcement during the concreting process?

A. No.

Q. Can I use galvanized reinforcement in conjunction with bare steel reinforcement?

A. Yes. In fact, it may only be considered necessary to use galvanized steel in the more critical locations of a structure where there is a higher risk of corrosion or where the consequences of corrosion could have particularly serious consequences.

Q. Do compliance standards exist for galvanized reinforcement?

A. Yes. In Australia and New Zealand galvanizing of reinforcement falls under the AS/NZS Standard 4680:2006 "Hot-dip galvanized (zinc) coatings on fabricated ferrous articles". In other countries (eg. USA and some European countries) a product-specific standard exists.

Q. How does galvanized compare to (fusion bonded) epoxy coated reinforcement?

A. Galvanized compares very favourably. Being soft, epoxy coatings are easily prone to damage, requiring extreme care be taken at all stages of storage and installation, since corrosion at even minor areas of damage will progressively spread beneath the surrounding coating. In contrast, no special precautions are necessary for handling galvanized reinforcement due to its excellent damage resistance. Even if localized damage occurs zinc's cathodic protection will prevent corrosion from spreading. A further important distinction is that studies of reinforcement's bond strength to concrete has shown this to be generally lower for epoxy coated, and certainly more variable, than galvanized. Significantly, in view of its superior performance, some infrastructural authorities responsible for marine structures (in the USA) have now opted to use galvanized in preference to epoxy coated reinforcement.

Further information on galvanized reinforcement

Please refer to the following websites and other sources of valuable, practical information:

- Websites: www.galvanizedrebar.com and www.gaa.com.au
- International contact address for queries: galvrebar@iza.com

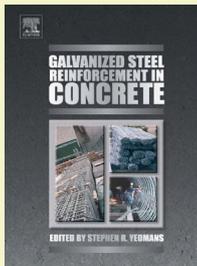
• Publications:

- Galvanized Steel Reinforcement in Concrete, Yeomans SR (see box below)
- Hot Dip Galvanized Reinforcing Steel - A Concrete Investment.

GALVANIZED STEEL REINFORCEMENT IN CONCRETE

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- Brings together a world-wide body of knowledge into a concise and authoritative text dealing with the characteristics and use of galvanized reinforcement in concrete construction
- Provides the most up-to-date and comprehensive collection of technical information and data presently available
- Contributions from expert authors from across the world, representing both academia and industry: SR Yeomans, RN Swamy, AA Sagues, TJ Langill, B Dugan, C Andrade, C Alonso, ND Allan, O Kayali and JP Broomfield
- Topics include: Overview of use; Design for durability; Corrosion in concrete; Zinc materials; Electrochemical aspects; Laboratory and field performance; The Bermuda experience; Bond and structural performance; A Consultant's perspective
- ILZRO Sponsored Project (ZE 429)

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