

## Fibre Reinforced Polymer Composites as Internal and External Reinforcements for Building Elements

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### Abstract text:

During the latest decades fibre reinforced polymer (FRP) composite materials have proven valuable properties and suitable to be used in construction of new buildings and in upgrading the existing ones. These materials have covered the road from research laboratory and demonstration projects to implementation in actual structures. Nowadays the civil and structural engineering communities are about to commence the stage in which the use of FRP composites is becoming a routine similar to that of traditional material such as concrete, masonry and wood. Two main issues are presented in this paper, the use of FRP composite materials for new structural members (internal reinforcements) and strengthening of existing members (externally bonded reinforcements). The advantages and disadvantages as well as the problems and constraints associated with both issues are discussed in detail mainly related to concrete members.

### Key Words:

Fibre rReinforced Polymer; Composite Materials.

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