IN-LB	Inch-Pound Units
SI	International System of Units

Design and Construction of Externally Bonded Fiber-Reinforced Polymer (FRP) Systems for Strengthening Concrete Structures—Guide

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Fiber-reinforced polymer (FRP) systems for strengthening concrete structures are an alternative to traditional strengthening techniques such as steel plate bonding, section enlargement, and external post-tensioning. FRP strengthening systems use FRP composite materials as supplemental externally bonded or near-surface-mounted (NSM) reinforcement. FRP systems offer advantages over traditional strengthening techniques: they are lightweight, relatively easy to install, and noncorroding. Due to the characteristics of FRP systems as well as the behavior of members strengthened with FRP, specific guidance on the use of these systems is needed. This guide provides general information on the history and use of FRP strengthening systems; a description of the material properties of FRP; and recommendations on the engineering, construction, and inspection of FRP systems used to strengthen concrete structures. This guide is based on the knowledge gained from experimental

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