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Recent Developments on High-Performance Fiber-Reinforced Concrete: Hybrid Mixes and Combinations with Other Materials

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The use of high- and ultra-high performance fiberreinforced concretes (HPFRC and UHPFRC, respectively) has increased significantly in recent years as a result of large research efforts and collaboration between research and industry. Among the most recent developments aiming at an optimization of the material possibilities, researchers have tried to combine different fiber types within the cementitious mix, including fibers with different geometries (straight, deformed, twisted, etc.) or materials (steel, polymer, synthetic, etc.). New advances regarding the aggregates, cement or additives have favored the development of engineered composites. Special mixes have been developed to perform satisfactorily under severe load conditions and environments such as fatigue, impact, or corrosion. In addition, HPERC and UHPERC have been combined with other materials (such as conventional concrete, steel, FRP, etc.) to form composite members or strengthen and retrofit existing structures.

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> Prof. Dr. Carlos Zanuy *Guest Editor*









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