

PET (POLYETHYLENE TEREPHTHALATE) FIBRES MANUFACTURED FROM RECYCLED PRODUCTS USED IN CONCRETE AND FIBRE CEMENT APPLICTIONS

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Keywords: Polyethylene terephthalate fibres, concrete, fibre cement products, durability, shrinkage

Abstract

PET fibres can be added to ordinary concrete to reduce plastic shrinkage cracks as well as reduce the crack widths of drying shrinkage cracks. The effectiveness is dependent on the fibres characteristics, dosage as well as the concrete matrix. PET fibres can also be used in the fibre cement industry. The difference between concrete and fibre cement is that classical fibre cement is produced on a Hatschek machine and uses larger volumes of reinforcing fibres and the products are generally thin sheets typically between 4 and 8 mm thick. Initial tests run on a pilot Hatschek machine have indicated that PET fibres can be used successfully in fibre cement products. Durability aspects have been addressed. The main emphasis on this paper will be the use of PET fibres in the fibre cement industry.