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Shear Strength Improvement of Black Cotton Soil Reinforced with Waste Plastic Bottle Strips

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Abstract

India generates an average of 26,000 tons of plastic a day. The plastic processing industry is producing 13.4 MT in 2015 and growing to 22 million tons (MT) a year by 2020 (TOI article 2019) [1]. Black cotton soil has a very low-bearing capacity. Due to its characteristics, it forms a very poor foundation material. Black cotton soil falls under a major constituent of soil in India. The soil undergoes volumetric changes when soil is present on the water table. Increase in water content causes the swelling of the soils and loss of strength. Decrease in moisture content resulting in soil shrinkage. BC