

Effects of Dimensional Sizes of Mould on the Volumetric Shrinkage Strain of Lateric Soil

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Abstract : The paper presents the result of a laboratory study carried out on lateritic soil to determine the effects of dimensional size on the volumetric shrinkage strain (VSS) using three mould sizes i.e. split former mould, proctor mould and California bearing ratio (CBR) mould at three energy levels; British standard light (BSL), West African standard (WAS) and British standard heavy (BSH) respectively. Compactions were done at different molding water content of -2 % to +6 % optimum moisture content (OMC). At -2% to +2% molding water content for the split former mould the volumetric shrinkage strain met the requirement of not more than 4% while at +4% and +6% only the WAS and BSH met the requirement. The proctor mould and the CBR mould on the other hand gave a lower value of volumetric shrinkage strain in all compactive effort and the values are lower than the 4% safe VSS value.

Keywords : lateritic soil, volumetric shrinkage strain, molding water content, compactive effort

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