压实膨胀土的膨胀变形规律与计算模式

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摘要　　以陕西安康压实膨胀土为对象，通过不同初始干重度、初始含水率和上覆压力的一系列膨胀量试验，得到了人工压实膨胀土的膨胀变形随以上3种因素变化的规律，并总结提出了考虑初始含水率、初始干重度和上覆压力3种因素的耦合变化，满足工程精度要求的膨胀量计算模式，并对该计算模式进行了验证，证实了其正确性。结果表明：在实际工程中，可以通过有限的几组膨胀量试验得到计算模式的参数，用文中提出的计算模式直接计算任意初始干重度、初始含水率的土体在任意压力下的膨胀变形量，具有重要的实用价值。

SWELLING DEFORMATION AND CALCULATION METHODS OF COMPACTED EXPANSIVE SOIL

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Abstract

With compacted expansive soil in Ankang city of Shanxi province，by a series of swelling capacity laboratory tests with different initial dry densities，moisture contents and pressures，the characteristics of swelling deformation with the above three parameters were found. The calculation methods of swelling capacity of compacted expansive soils，which can fulfil the accuracy requirements of engineering and take into account the coupling effects between initial dry density，initial moisture content and pressure，are summarized. The correctness of the pattern has been confirmed too. In engineering，the pattern can be utilized to calculate swelling deformation of compacted expansive soil，which can have any initial dry density，initial moisture content and pressure，with several swelling capacity tests to obtain the parameters.
Key words soil mechanics；expansive soil；compaction；calculate pattern；rules

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