

# Three-dimensional plastic geocells in the construction of railroads

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**ABSTRACT:** To reduce subsidence and vibration of a railway track under the train loading, a properly reinforced construction of a subgrade is needed. This paper was prepared in order to familiarize the professionals with a new system of subgrade stabilization, which includes the technology of three-dimensional soil reinforcement with plastic geocells. This technology is in compliance with "Innovation based development" concept currently implemented in Europe.

*Keywords: Geocell, tensile tests, subballast protection layer, slope erosion protection, materials for geocell filling, track sections with variable stiffness*