SOIL STABILIZATION FOR CONSTRUCTION OF RURAL EARTH ROADS.
SELECTION OF OPTIMAL COMPONENTS

Key words: earth road, rural road, technical infrastructure of rural areas, the soil stabilization of the basement/pavement

Summary

Rural earth roads with access to fields, forests and farms are not public ways, thereby they are not classified according to criteria General Directorate for National Roads an Motorways (GDDKiA). Finally the technical state and manners of the maintenance of the ways leave much to be desired. Existing earth roads arose very often as a result the crossing vehicles and farm machines. Their basement crates of the local soil enriched with waste such as: rubble, stones, porcelain, glass and even the ash. Unfortunately, these methods are not sufficient, solidly and permanently to strengthen local earth roads, especially, when in the basis appear soils subject to frost-heave. Precipitation and freezing temperature cause plastifying of the soil, finally roads become impassable within the period of intensive falls and spring thaw.

Contemporary methods of the stabilization earth roads with using of binders hydraulic and chemical create the chance on the marked improvement of the state and the durability of earth roads. In the article one introduced complexly the methodology of research of soils subject to frost-heave (eg. clays, rubbles and clayey sands). The methodology embraces both geotechnical researches of the ground foreseen to the stabilization, as well as researches of the compression strength of mixtures of soils with different binders. On the basis previous results of laboratory, results showed that the mixing of several binders (eg. binders hydraulic and chemical) with the ground, gives the synergistic effect in the form of enlarged endurance.