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## Effect of palygorskite and soluble salts on engineering characteristics of arid region soils

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**Abstract:** In Iran, a large extent of the soils and water are facing with salinity; so the geotechnical properties of arid and saline soils are important for engineering design. In this study, the effects of salinity on geotechnical properties of fine-grained and coarse-grained soils containing fibrous clay minerals have been studied. The results showed that salinity was mostly a flocculated agent in fine-grained soils while in coarse-grained soils, it is usually a dispersing factor. In general, salinity increased dry strength parameters and decreased the optimum moisture content. But changes according to the type of clay mineral and particle size, distribution were different.

**Keywords:** *arid region soils; salinity; fibrous minerals; geotechnical properties.*

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