## Influence de l'addition du sable de dune en poudre au ciment sur les propriétés des bétons

European Journal of Environmental and Civil Engineering - Taylor & Francis vol. 15(10), pp. 1483-1507.

Authors: S. GUETTALA et B. MEZGHICHE.

## **Abstract**

Cements with additions will not only reduce production costs but also to solve some environmental problems in addition to offering better performance to concrete. This experimental work has focused on studying the possibility of using dune sand powder as part addition to Portland cement. The incorporation of dune sand powder as an alternative to Portland cement yields a new variety of cement compound with physico-mechanical properties superior to those of Portland cement. The results obtained show that the contribution of addition dune sand powder to the cement binding activity results primarily from three effects: physical, physico-chemical and chemical. These effects act simultaneously and in a complementary way on the properties of concrete.

**Keywords**: Portland cement, addition, dune sand powder, cement compound, properties of concrete.

Link http://www.tandfonline.com/doi/abs/10.1080/19648189.2011.9723355#.U1Oef1V5P78