

Certain finely ground mineral admixtures, such as blast furnace slag, pozzolana and limestone, influence, to a greater or lesser extent, the chemical and physico-mechanical properties of concrete/mortar. This study aims to test the properties of high performance mortars containing natural pozzolana. The durability of these materials subjected to various conditions to which the samples were exposed was quantified by the change of strength, density, ultrasonic pulse velocity (UPV) and Vickers hardness. The environmental conditions were as follows: immersion in seawater, saturated sulphate solution (gypsum), running water and cyclical exposure to air/water, to simulate variations in water level. The formation of different crystal phases resulting from the aggressive medium was monitored by X-ray diffraction and scanning electron microscopy