

Thaumasite Formation due to the Use of Aggregates with High Carbonate and Sulphate Content

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The formation of thaumasite in mortars and the influence of this mineral in relation to deterioration of building materials are discussed. An investigation of a mortar elaborated with dolomitic sand with high content of sulphates used to settle a ceramic pavement was carried out. This mortar has undergone an important deterioration process due to the formation of expansive compounds in the environmental conditions of temperature and humidity of the installation in Murcia (Spain). Materials present in the soft pulpy mass were examined by means of x-ray diffraction and scanning electron microscopy with EDX, and the presence of thaumasite was identified.