

International Conference on the Management of Naturally Occurring Radioactive Materials (NORM) in Industry

VIRTUAL EVENT

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The presence of white dolomite in the Gafsa basin (Métlaoui) and how it was used to make wall sealant.

Earth elements are receiving increasing attention due to the rapid development of modern industries and the technological development of their use. The hidden entry into natural resources and the environment is important.

The strong increase expected in the production of this raw material in Tunisia (Gafsa Basin-Metlaoui), the current stock of this material is important, justifies investigations on its use as a main material. Already, a little more than a decade ago, and within the framework of a lucid policy, the Compagnie des Phosphates de Gafsa, had considered it opportune to study a certain number of projects of useful mineral substances likely to present an economic interest, in order to move forward in the creation of promising projects, among which in particular :

-white dolomites which outcrop widely in the Eocene terrains of the Gafsa Basin and more precisely those of Moularés and M'Zinda which have been studied.

The reuse of white dolomite depends on the physico-chemical characterisation of this substance. It is not different from gypsum, clays, Cherts, calcium carbonates... because a structural model for the material has been developed. The main result is to highlight the presence of permanent cohesion. The material from this quarry (dolomite) substitutes the imported product, we discovered that it is also valid to seal the wall and better determine the stability of the walls and use for the manufacture of Ceramics, filler (Paper), Glassware. The tests were carried out in the laboratories of the Gafsa Phosphate Company, showed MgO contents of 17% to 19% and a low iron oxide content of 0.008%.

Systematic sampling of the series was carried out at three sites with a 200m grid. We took six samples for chemical analysis and four blocks for geotechnical testing.

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