

UNUSING OF MICROWAVES IN FABRICATION PROCESS OF MODELING GYPSUM PLASTER

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ABSTRACT: The paper has presented some results realized at “Congips” Co. Oradea and University of Oradea, regarding of modeling gypsum plaster quality by using of microwave energy of gypsum ore roast. At the base of elaboration process by microwave energy is stand the properties of electromagnetic waves. The gypsum ore get in microwave field, in conditions of predictable pressure and temperature has transformed in modeling gypsum plaster by fast lost of a part of crystallization water. The time of processing is very short, which due to a great productivity and low cost of process.

1. INTRODUCTION

The phonic-absorbent panels, cased ceilings and plates have applied in halls of concert, sport, library, theater offices, malls, civil and industrial buildings, etc., being realized on the base of composite materials, type α and β -plaster [1-5]. The base matrix is plaster mixed with cellulose fibers and magnesia fibers, small breakage granules of expandable polystyrene [6-12] or expandable perlite, the plaster assured mechanical and chemical stability.

The plaster with added of cellulose fibers, mineral wad and cardboard, knowing as re-gyps, de-gyps improving the phonic and thermal insulation of rooms.

There are many plaster-manufacturing proceedings by dehydrated of gypsum.

The forming of hemihydrates calcium sulphate is obtaining by two methods [14-20]:

- From dehydrated of gypsum in open installations at atmospheric pressure results β -building plaster;
- From dehydrated of gypsum in closed installations at great that atmospheric pressure.



Fig. 1– Autoclave

1 –feed with gypsum; 2 – exhausted of plaster gypsum; 3 – tubs for driving of burned gases

5. SELECTIVE REFERENCES

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