

THE USAGE OF PUMICE IN THE MANUFACTURING OF ISOLATED MONOLITHIC MATERIAL

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ABSTRACT.- In this paper the experimental results of developing refractory monolithics containing pumice, expanded perlite, kieselguhr and Portland cement are presented. Using Andreasen Equation, three different aggregate grads have been tried to obtain N class insulating monolithic refractory composition to comply with ASTM standards. The results of analysis of pumice, perlite and kieselguhr are given. Bulk densities, linear changes after drying and firing (925°C) and cold crushing strengths have also been determined on the samples prepared according to ASTM standards. As the best values, the bulk density after drying was 0.94 g/cm³ and the linear change after 925°C was calculated as -1.7 %, which are given as 0.88 g/cm³ and -1.5 % respectively in related ASTM standard.

Key words: Pumice, monolithic, isolated, refractory

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