

An Investigation of Foam Glass Production from Sheet Glass Waste and SiC Foaming Agent

Authors : Aylin Sahin, Recep Artir, Mustafa Kara

Abstract : Foam glass is a remarkable material with having incomparable properties like low weight, rigidity, high thermal insulation capacity and porous structure. In this study, foam glass production was investigated with using glass powder from sheet glass waste and SiC powder as foaming agent. Effects of SiC powders and sintering temperatures on foaming process were examined. It was seen that volume expansions (%), cellular structures and pore diameters of obtained foam glass samples were highly depending on composition ratios and sintering temperature. The study showed that various foam glass samples having with homogenous closed porosity, low weight and low thermal conductivity were achieved by optimizing composition ratios and sintering temperatures.

Keywords : foam glass, foaming, waste glass, silicon carbide

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