

عنوان مقاله:

Effect of temperature and composition on the cell morphology and the density of polystyrene / polymethyl methacrylate blend foams

محل انتشار:

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خلاصه مقاله:

In this paper, the foaming process and cell morphology of polystyrene(PS)/ polymethyl methacrylate(PMMA) blend foams were studied. PS / PMMA blends were prepared in different compositions with /without calcium carbonate. In order to investigate the foaming process, the polymer plates samples, 200 μm in thick, were saturated with normal pentane gas and foaming process was studied. The results show that with increasing of the temperature, the saturation process performs faster. Also with the increase of PMMA content in the blend, the gas penetration into the polymer and foam density decreases. Addition of nanoparticles in the blend resulted on increasing of the nucleation rate and void density.

کلمات کلیدی:

Nano particle; Foam; Polystyrene

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