The porous glass 'foam glass' is considered as the new glass products fulfill certain requirements in the building industry in particular (thermal and acoustic insulation). The production of foam glass based waste glass plays an important role in environmental protection and also gains in energy. As part of present work, we seek to improve the properties of glass to obtain a building material lighter with excellent insulation properties. The properties of foam glass depend on the porosity and morphology. The present work devoted to analyze the microstructure of the glass produced by scanning electron microscopy and optical microscopy to be more precise on the size and shape of pores constitute this material