The red rice is considered one of the most common weeds in rice plantation, however it has a great potential for use in food industry, for example, as a flour, which has a very similar chemical composition when compared with the rice grain. This flour can be used as great thickener, in bakery, sports drinks, beverages for diabetics, among others, plus it has no gluten and represents a low glycemic meal, compared to other similar products . This study aimed to analyse chemical and technological properties of red rice flour. The moisture, ash, chemical composition, fat, protein, fiber, carbohydrate, grain size, water absorption index, index of solubility, color, viscosity were analysed and results showed that the red rice flour has chemical properties that favor it’s technological usage in food industry, especially in bakery industry for it has a high carbohydrate content as well as high capacity to retrogradate starch and low fat. Besides all that, the study showed that red rice has similar characteristics when compared to brown rice, which means it will adds an even greater nutritional value to the products that includes it in their formulation.