The objective this study was to determine the physico-chemical composition of bread in whole wheat flour stabilized Citrosen® stabilizer based on citric acid and enriched with wheat bran in different proportions of 0%, 5%, 10%, 15%, 20%. The breads were analyzed for pH, acidity, ash, water content, water activity, protein, fiber, these were performed according to the standards of the Adolf Lutz Institute(2008), and represented by the color parameters lightness (L*), redness (+a*) and intensity of yellow (+b*), whose measurements were determined in experimental. The calorimeter results of these tests for the concentrations of 0%, 5%, 10%, 15% and 20% added fiber were: water content: 29.7%, 37.7%, 37.8%, 37%, 40.1%, acid: 37.2, 30.4, 29.8, 29.7 and 29.8, pH: 5.06, 5.4, 5.4, 5.5, 5.7, ash, 0.71%, 1.298%, 1.48%, 1.32%, 1.41%, about the color change was observed, due to addition of bran, 20% of the sample showed a higher intensity to red the other samples. The protein and fiber have varied within expected values. With the addition of wheat bran was an increase in moisture content when compared with the 0%, as happened for the same pH and acidity, all values referred to in the literature.