Two brands of breaded chicken were evaluated for content of lipid, protein, moisture and ash, before and after immersion in fry soybean oil at 140°C for 10 minutes and 180°C for 1 minute and 40 seconds, with the objective to verify the influence of fry on the content of these nutrients. The amount of lipids was obtained by extraction with petroleum ether in Soxhlet extractor unit in triplicate. The total content of lipids extracted from the raw breaded brand I and II, respectively, was 12.22% and 7.68%, after fry at 140°C was on average 23.2% and 24.57%, and in 180°C was 18.31% and 21.73%, respectively. That is, with a higher temperature, lower the amount of lipids. As a protein, brands have similar content: 11% of raw breaded, 14% at 140°C and 13% at 180°C. The two brands were within the specific legislation which must be at least 10% of this nutrient. The moisture of brand I was 57.37% breaded raw, 41.45% at 140°C and 38.76% at 180°C. Brand II was 66.43%, 36.31% and 46.4%, respectively. That is, there was an increase of the moisture with increasing temperature. The ash contents were similar among brands: 1.8% raw, 2.5% at 140°C and 2.6% at 180°C, no significant differences in temperatures. The fried product presented, therefore, different characteristics after the fry process, by the fast change of their physicochemical characteristics, emphasizing the considerable increase of its energy content, independent of the temperatures used in the process.