The consumption of soyfoods is of great interest because of their proposed anticancer and antiatherogenic activity. It has been suggested that the soy isoflavones genistein and daidzein are partially responsible for these activities. This study investigated the enzymatic pre treatment of soy slurry using Viscozyme L and the effects on isoflavones content of silken tofu. Soy slurry treated with Viscozyme L (2.5 mL/L) was incubated for 30 minutes at 55 °C. The levels of malonyl conjugates approximately duplicated in treated tofu compared to control. The daidzein content was 9.85 and 10.44 mg/100g in treated and control tofu, respectively. The levels of glycitein were low compared to other isoflavones (2.9 mg/100g tofu). Genistein level decreased in treated tofu (16.14 mg/100g) compared to control (19.94 mg/100g). Application of Viscozyme L did not improve the concentration of genistein isoflavone. Considering our tofus, with approximately 91% of water, the intake could vary between 3.6 and 3.9 mg/day for control and enzyme pre treated tofu, respectively. Total amounts of the three forms of isoflavones normalized for their molecular weights resulted in the same amounts in treated and control tofus. Total daidzein was 29.93 mMol/100g; total genistein 45.28 mMol/100g and total glycitein 16.96 mMol/100g of tofu. The total amount of isoflavones was then 92.16 mMol/100g of tofu. The isoflavones content did not vary with enzymatic treatment and total amount of the compounds was the same for both samples.