

ABSTRACT

PT Sinar Sosro is the world's first company that develops ready-to-drink beverages in packed bottles. The company's primary activity is to manufacture and distribute RTD beverages, mostly tea-based products, to both the domestic and foreign markets. Tea is one of a few plantation commodities that is a mainstay of Indonesia's global market. One of the most important factors to consider while making a great tea beverage is keeping its appearance. Polyethylene terephthalate is colorless and clear, this is an important characteristic since it allows consumers to see what is within the bottles. Color is a natural characteristic of beverages that is intimately associated to flavor fulfillment perception. The color of black tea is mostly determined by the oxidation products theaflavins and thearubigins. Failure to match consumer color expectations can be critical to the product's success. ASLT and stability are two methods for calculating product shelf life. The goals of this study were to predict the color shelf life of PT Sinar Sosro's Fruit Tea Passion Fruit and compare the results to stability tests. Fruit Tea Passion Fruit was stored at various temperatures for one month, including room temperature 35°C, 45°C, and 55°C, and its stability at room temperature was assessed. The investigation revealed that zero order equation can be utilized to estimate the shelf life of this project. Based on ASLT data, the color shelf life of Fruit Tea Passion Fruit at 25°C was 106.19 days (14 weeks). Meanwhile, based on stability testing at 25°C, the color does not exceed the product's key quality limit. This conclude that ASLT can be utilized to predicting the shelf life of the products, although there is slightly differ from the actual shelf life.

Keywords: Color, ASLT, Stability, Shelf life