The color change usually determines the stage of fruit ripening, being a parameter of selection and quality. This study evaluated the effect of edible coatings of zein at concentrations of 1 and 2% of oleic acid for the preservation of red guava. Guavas coated and uncoated (control) were stored under refrigeration (5°C) for five weeks, performing instrumental analysis (L*; Hue; Chroma) for peel and pulp color every seven days, and sensory discriminative tests (triangular and ordering) for color and brightness every twelve days. According to Hue angle values, the fruits of the three treatments remained in the storage with peel color yellow-orange and pulp color orange-red. Comparing the first to the fifth week, it was found: significant reduction of Chroma’s peel color to control fruits (less color intensity); for all treatments, the Chroma’s pulp color increased (greater color intensity), being significant for fruits to 2%, and the luminosity of peel color became clearer and of pulp color darkened, not being significant for fruits to 2%. In the triangular test, there was significant difference between fruits to 1% and control for color and brightness throughout the storage. Fruits to 1% differed from fruits to 2% for color and brightness after 24 days of storage. At the ordering test, the color of fruits control presented clearer than fruits to 1% and with brightness more intense than fruits to 2%. Although fruits to 2% are less brightness than control fruits, this coverage was potentially more effective to preserve the color of red guavas.