Juçara pulp (*Euterpe edulis*) is nutritionally and sensorially attractive, with high levels of antioxidants. However, their marketing is difficult over long distances and may be favored by lyophilization technology, which preserves their original qualities, and extend its shelf-life. This study aimed to evaluate the physicochemical stability of juçara pulp submitted to the freeze-drying process and packed in polyethylene bags (PE) and PE coated with aluminum layer. Evaluations were performed of gain in moisture (%), water activity (wa), color (L*, Hue, Chroma), anthocyanins (mg cyanidin 3-glucoside equivalent 100g^-1 powder) and total phenolics (mg gallic acid mg^-1 powder) between 1 and 30 days storage at room temperature and protected from light. Data were submitted to Tukey test (p> 0.05), in triplicate. The samples were packed in PE coated with aluminum layer had doubled the water activity, against three times for the packed in PE during storage. These results agree with those obtained in the evaluation of gain in moisture, on which the samples packed with PE acquired more water. The parameters color (L*, Hue, Chroma), anthocyanins (240.00 mg cyanidin 3-glucoside equivalent 100 g^-1 powder - mean value) and total phenolics (0.06 mg gallic acid mg^-1 - mean value) were not altered in both samples during the storage period. It was concluded that the lyophilized juçara pulp and packed in PE coated with aluminum layer obtained higher stability for acquired less moisture, which is important for dehydrated products.