The grugru palm powder is regional handmade product obtained at low cost through basically fresh pulp drying followed by grinding. This product has a high nutritional value and can be used to make juices, cakes, ice cream, jellies, porridges. However, it is important to know its physical and chemical characteristics aiming at a better applicability of the product. The objective of this study is to evaluate the physical and physicochemical of grugru palm powder. Fruits were harvested in the Plains of Araripe, Ceará State. The fruits were selected, sanitized and peeled to obtain the pulp. Then the pulps were cut using stainless steel knives, crushed and spread on trays for drying in an oven with circulating air at a temperature of 65° C for 25 hours, and milled to obtain the powder. The analyses were: color (L*, a* and b*), water activity (a_w), moisture, pH, titratable acidity (TA) and soluble solids (SS). The values of powder color were: L* 49.76, a* -1.38 and b* 24.63. The powder showed: a_w 0.20, moisture 3.28g 100g^-1, pH 5.57, TA 2.10 g 100g^-1 of oleic acid and SS 40.29 °Brix. The powder brightness showed a tendency to black and chromaticity to pale yellow. The values of water activity (a_w) and moisture content are suitable to prevent the growth of microorganisms, and the pH, titratable acidity and SS qualify the powder as presenting low acidity and sweet taste.