

---

# THE ENDLESS POSSIBILITIES OF GLUE

---

DIY edible glutinous rice glue

The Affiliated School of the University of Macau



Nowadays, there are many kinds of children's activities, which increase the frequency of glue usage, but materials used to make glue are harmful for children whose immune system is not fully developed. Due to overly-harvested okra are largely disposed. Instead of wasting the okra, we decided to extract the mucilage from okras, combine with glutinous rice flour and tried to make several sets of glue in different proportions to produce glue as a replacement of glue in the existing market. Finally, 6:5:4:2 (glutinous rice flour: water: okra mucilage: antiseptic and antibacterial agent) is the best ratio, having a great viscosity also can store longer.

To prove that our tested glue are safe and function better than the rest, we conducted 5 tests, including Adhesive ability test, Viscosity test, Bearing capacity test, Formaldehyde test and ATP test. The results show that our glues are safer with better quality.

Since our products are made by plants, it greatly reduce the harmful substance level in glue and it also won't cause food wastage. The most important is that it is a milestone for sustainability development in our daily life.