Editorial Board

For Authors

- Authors Declaration
- Instruction to Authors
- Guide for Authors
- Copyright Statement
- Submission

For Reviewers

- Guide for Reviewers
- Reviewers Login

Subscription

Czech J. Food Sci.

Stasiak M., Molenda M., Opaliński I.,

Błaszczak W.:

Mechanical properties of native maize, wheat, and potato starches

Czech J. Food Sci., 31 (2013): 347-354

The interrelations between moisture content and mechanical properties of dry and wet native starches of wheat, maize, and potato were investigated. Strength parameters of powders were tested using direct shear and ring shear tester. Carr indices and associated parameters were determined using a Hosokawa Powder Tester. Particle size distribution of powder was analysed using an Infrared Particle Sizer. Uniaxial compression test was conducted to determine the reaction of powder in a cylindrical probe to vertical load. Mechanical behaviour of the material was found to be changing with increasing moisture content. Mechanical behaviour of potato starch was found to be different from that of cereal starches, which may require different utilisation in some processes.

Keywords:

moisture content; food powders; flowability; slip-stick

[fulltext]