DEVELOPMENT OF EXTRUSION TECHNOLOGY OF BREATHABLE FILM FOR INDUSTRIAL APPLICATIONS.

BY

Samantha Sisira Kumara Perera Illangarathne.

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Department of Chemical & Process Engineering
University of Moratuwa

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Supervisor: Dr. Olga Gunapala
University of Moratuwa

Department of Chemical and Process
Engineering.
University of Moratuwa.
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" I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a Degree or Diploma in any University and to the best of my knowledge and belief it does not contain any material previously published, written or orally communicated by another person except where due reference is made in the text.

UOM Verified Signature

Signature of candidate
Mr. S.S.K.P.Illangarathne
"To the best of my knowledge, the above particulars are correct".

Supervisors:

UOM Verified Signature

Dr (Mrs.) G. Gunapala
Chemical and Process
Engineering Department.

UOM Verified Signature

Dr P.Y Gunapala
Materials
Engineering Department.

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ABSTRACT.

The present research was pursued to develop breathable plastic packaging suited for desired level of moisture permeable application. The monolayer plastic films differed by resin composition were extruded by blown film equipment and two types of packaging with different architecture were prepared from the films extruded. To evaluate the package quality, the shelf life of fresh mushrooms packed in the packages was studied. Water vapour transmission rate and other performance properties of plastic films were determined. Results demonstrated good breathability of the developed packaging. Preference was given to the filled polyolefin compounds. Importance of filler particle size, treatment and processing conditions, including biaxial orientation were shown .Use of local filler and traditional single layer extrusion equipment did not contribute to the cost significantly, making packaging affordable easily by local consumer.

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