

CHARACTERIZATION OF RHEOLOGICAL PROPERTIES FOR EXTRUDED INSTANT POWDER OF CEREALS BASE (STARCH)

OANA CIOBOTARU *, CLAUDIA V. LEEB**, HEIKE P.
SCHUCHMANN**

** Department of Food Biotechnology, “Lucian Blaga” University of Sibiu,
Romania*

*** Department of Food Engineering, Technical University of Karlsruhe
(TH), Germany*

Abstract: Rheological properties of two instant powders for childrens (drum drying products Alnatura oat mash and Nestle semolina) compared with two extruded starchy products (wheat flour and corn starch) for general use were analysed. The measurements were realised using plate-plate geometry and flow curves and viscosity were obtained. The procedure for the rheological analysis was established. The curves obtained showed that all four analysed products behave as pseudoplastic fluids. The rheograms illustrate that extruded products, as well as the drum dried ones show unreal thixotropy.

Keywords: instant powder, flour, rheology, extrusion

Corresponding author: Oana Ciobotaru, “Precisa” SRL Sibiu, Romania, e-mail:
ciobotaru.oana@yahoo.com

Acta Universitatis Cibiniensis Series E: FOOD TECHNOLOGY

Vol. X (2006), no.1, p. 19-28