
PARAMETER SELECTION OF EQUATIONS OF WATER VAPOUR
ADSORPTION KINETICS BY COCOA INSTANT POWDER
AND ITS INGREDIENTS

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Abstract. The purpose of the research was analysis of material composition and water activity influence on the kinetics of water vapour adsorption. The materials were powders: crystal and powder sugars, pure cocoa, milk powder and maltodextrin. Kinetics of water adsorption were determined at three levels of water activity of the environment (0.34; 0.65; 0.90). Two exponential equations were determined: simplified and compound. Both equations well fitted the adsorption curves at three levels of water activity.

Key words: powdered cocoa drink, water vapour adsorption, water activity, kinetics of water adsorption