

# STUDIUM Vlivu PŘÍSAKY HYPROMELOSY NA HMOTNOST OČNÍCH KAPEK

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## **Summary**

In this work, the influence of three factors on the weight of eye drops produced by the compressible plastic bottle: the dropper tip, the dispensing angle, and viscosity of the preparation was studied. All factors produced the significant effect ( $p \leq 0.05$ ). It was found that plastic tip with smaller diameter produced eye drops of lower weight in comparison to the rubber dropper tip with larger diameter. The change of dispensing angle from  $90^\circ$  to  $45^\circ$  led to the decrease in the drop weight produced by both dropper tips tested. Non-linear increase in drop weight was occurred when viscosity increased in consequence to the gradually increased concentration of the 0.00%-0.16%-0.25%-0.50%-0.75%-1.00% hypromellose (HPMC) solution. Statistically significant increase in the weight of the drops was detected for wetted dropper tips, either plastic or rubber, at 0.16% HPMC concentration which corresponded to viscosity of 3 mPa·s. In contrast, the weight of the drops produced by non-wetted dropper tips was increased above viscosity of 17 mPa·s corresponding to the 0.50% HPMC concentration.