

Stage 7. Filling in the form

The resulting mass is reloaded into the bunker of the filling machine.

With the help of a tubing machine, balm is packed in the form. Control the accuracy of the dosage, the performance of the machine and the correctness of the imprint on the drain (serial number and expiration date).

Stage 8. Packing of forms in boxes

Forms with the instructions for use are packed in packages on a packing machine. Each form, together with the instructions for use, is packed in a pack of cardboard. Packs are placed in cardboard boxes by hand on the table. In each box, put 50 pcs of packs with the forms and sheet "Packager".

Conclusion: On the basis of undertaken experimental studies the technology of lip balm was developed. Optimal temperature mode and order of introduction of components were chosen.

THE CHOICE OF MUCOADHESIVE IN THE COMPOSITION OF VAGINAL GEL

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Introduction. When developing a vaginal gel, an important criterion for its effectiveness is the prolongation of action to provide maximum therapeutic effect. For the fixation of the drug on the surface of the mucous membrane auxiliary substances – mucoadhesives are introduced to the composition, which cause not only the retention time of the substance on the surface, but also its uniform distribution and the completeness of API release. The purpose of the work was to conduct a study on the choice of mucoadhesive for the introduction to gel with resveratrol and hyaluronic acid.

Materials and methods. In the course of the study samples of gels with different mucoadhesives in the composition were used. Mucoadhesives used were: sodium alginate (FMC BioPolimer AS, Norway), methyl cellulose (Shin Etsu, Germany), Methocel – methyl cellulose with hydroxypropylmethyl cellulose (Dow Pharmaceutical Sciences, USA), OraRez® W-100L16 – vinyl methyl ether and maleic anhydride copolymer (BOAI, China). As a comparison drug, vaginal gel "Gynodec" (Yuriya-Pharm) was used. During the study, the rate of the gel distribution on the surface of the mucous membrane model, the degree of deformation under the action of mechanical forces, the degree of fixation of the gel on the mucosa surface under the influence of the physiological fluid and the adhesion ability of the samples have been determined.

Results and discussion. On the basis of the complex of physico-chemical research, indicators of bioadhesion of vaginal gel samples with different mucoadhesives in the composition have been established. By definition of the rate of gel distribution on the surface of the model of genital mucosa, it has been established that the best properties possesses the sample containing sodium alginate. Its rate of distribution is close to the reference drug. The study of gel samples deformation under the action of mechanical forces had shown that the sample with sodium alginate has the highest index of internal cohesion. As a result of determining the gel fixation on the surface of the mucous membrane under the influence of the model solution of the physiological fluid, it has been established that the best indicators have samples with methyl cellulose and sodium alginate in the composition. They did not change the shape of the spot and fixed well on the surface. It has been tensiometrically determined that the addition of sodium alginate in a concentration of 0.5% will provide a satisfactory adhesive ability of the vaginal gel.

Conclusions. According to the results of the conducted research, it is rational to introduce sodium alginate into the vaginal gel as a mucoadhesive substance.