MODELING THE PROCESS OF DEFORMATION OF VISCOELASTIC TEXTILE MATERIALS

Gulara Abdieva*; Aziza Adizova**; Tulkin Mavlanov***; Dilfuza Rakhimova****

*Department of Applied Sciences and Methodology of Additional Education,
Regional center for retraining and advanced,
Training of Public Education workers of the Tashkent Region,
UZBEKISTAN
Email: gulim.120969@gmail.com

**Bukhara Engineering-Technological Institute,
UZBEKISTAN

***Tashkent Institute of Engineers of Irrigation and Agricultural Mechanization,
UZBEKISTAN

****Department of Applied Sciences and Methodology of Additional Education,
Regional center for retraining and advanced,
Training of Public Education workers of the Tashkent Region,
UZBEKISTAN

ABSTRACT

The article covers the analysis of deformed state of textile threads with regard for their relaxation characteristics. As a model, The Boltzmann-Volterre integral relation has been used. For a specific calculation, a kernel with four parameters has been used.

REFERENCES

1) T M Mavlanov, G B Abdieva, M Abduvaxidov 2011 Mechanics of thread and clothes, Tashkent p 187

2) Dremova N V , Alimboev E Sh , Mavlanov T M 2004 To the estimation of reed stiffness of shuttle and shuttleless looming machines *"Problems of textile industry"* No 2, p 33-35

3) Karimjanova R S, Mirusmanov B, Mavlanov T M, Mukimov M M 2004, Research of deformation properties of cotton-silk hosiery based on theory of viscoelasticity *"Problems of textile industry"* No 2, p 37-39

4) Migushov I I 1980, Mechanics of textile thread and cloth, Moscow: Light industry, p 160

5) Koltunov M A 1976, Creeping and relaxation, M: Higher school, p 278

6) Nasretdinov S S, Abdieva G B, Mavlanov T M 2004, Experimental determination of the linearity limit of viscoelastic deformations of textile threads *Problems of mechanics and seismodynamics of buildings Materials of the International conference*, Tashkent, p 552-554

7) Mavlanov T M, Abdurakhimova F A 2004,Research of the deformation of hosiery yarn taking into account inelastic properties *"Problems of textile industry"* No 1, p 61-63

8) Mavlanov T M 2004, "Problems of textile industry" *To the 70th anniversary of Academician T.R. Rashidov* No 1, p 94-95

9) Akhmedov M Sh, Aslonov B,Orripov Z, Adizova A 2018, On the action of mobile loads on an uninterrupted cylindrical tunnel "Discovery publication" *Indian Journal of Engineering*, July, Vol 15 pp 209-218 https://discoveryjournals.org/engineering/current_issue/2018/A21.pdf

10) Zokirova D A , Adizova A J 2019,Torch vibrations of a viscoelastic shell with a viscous liquid *Indian Journal of Engineering*, 16, pp 197-203