

References

1. Miller JE, Nigg BM, Liu W, Stefanyshyn DJ, Nurse MA. Influence of foot, leg and shoe characteristics on subjective comfort. *Foot and Ankle* 2000; 21 (9): 759-766.
2. Irzmańska E. The microclimate in protective fire fighter footwear: foot temperature and air temperature and relative humidity. *Autex Research Journal* 2015; 16 (2): 75-79.
3. Satsumoto Y. Effect of shoe fit and moisture permeability of leather shoe on shoe microclimate and air exchange. *Journal of Ergonomics* 2016; 6 (4): 1-7.
4. Burnfield JM, Shu Y, Buster T, Taylor A. Similarity of joint kinematics and muscle demands between elliptical training and walking: implications for practise. *Physical Therapy* 2010; 90 (2): 289-305.
5. Reese DC. Development of a modified elliptical trainer for efficient lower – limb stroke rehabilitation - Master Thesis. 2004. Virginia Commonwealth University, Richmond.
6. Rupérez MJ, Monserrat C, Alemany S, Juan MC, Alcañiz M. Contact model, fit process and foot animation for the virtual simulator of the footwear comfort. *Computer – Aided Design* 2010; 42 (5): 425-431.
7. Lemmon D, Shiang TY, Hashmi A, Ulbrecht JS, Cavanagh PR. The effect of insoles in the therapeutic footwear – a finite element approach. *Journal of Biomechanics*. 1997; 30: 615-620.
8. Verdejo Mills NJ. Heel – shoe interactions and the durability of EVA foam running – shoe midsoles. *Journal of Biomechanics* 2004; 37: 1379-1386.
9. Chen WP, Ju C W, Tang FT. Effects of total contact insoles on the plantar stress redistribution: A finite element analysis. *Clinical Biomechanics*. 2003; 18: 17-24.
10. Jordan C, Payton C, Bartlett R. Perceived comfort and pressure distribution in casual footwear. *Clinical Biomechanics* 1997; 12 (3): S5-S5.
11. Bergquist K, Grahn S, Holmer I. A method for measuring the thermal protection provided by footwear. Proceedings of the Second International Congress on Physiological Anthropology. Kiel, Germany. 1994.
12. Lu Y, Kuklane K, Gao Ch. Types of thermal manikin in manikins for textile evaluation. *Elsevier Ltd*. 2017: 25-53.
13. Umbach KH. Physiological tests and evaluation models for the optimization of the performance of protective clothing, in Environmental Ergonomics, Mekjavić IB., (Eds) *Taylor and Francis*. 1988: 139-161.
14. Oglakcioglu N, Celik P, Ute TB, Marmarali A, Kadoglu H. Thermal comfort properties of Angora rabbit/cotton fiber blended knitted fabrics. *Textile Research Journal* 2009; 79 (10): 888-894.
15. Bivainyte A, Mikucioniene D, Kerpauskas P. Investigation of thermal properties of double – layered weft knitted fabrics. *Materials Science* 2012; 18 (2): 167-171.
16. Polipowski M, Więcek P, Więcek B, Pinar A. Analysis of the effect of channel parameters between filaments and single fabric parameters on air permeability, water vapour resistance and thermal resistance. *FIBRES AND TEXTILES in Eastern Europe* 2017; 25, 5(125): 79-86.
17. Polipowski M, Więcek P, Więcek B, Pinar A. Influence of selected parameters of the channels between threads on the air permeability of flat textile products with known characteristics. *FIBRES & TEXTILES in Eastern Europe* 2017; 25, 3(123): 129-138.
18. Benloufa S, Fayala F, Cheikhrouhou M, Nasrallah SB. Porosity determination of jersey structure. *Autex Research Journal* 2007; 7 (1): 63-69.
19. Kopias K, Pinar A. Influence of loop position in warp – knitted plain stitches on structural properties of knitted fabrics. *Autex Research Journal* 2004; 4 (2): 81-85.

20. Kopias K, Pinar A. Comparative analysis of structural parameters of warp – knitted fabrics with interlock and traditional stitches. *FIBRES & TEXTILES in Eastern Europe* 2004; 12 (2): 52-57.
21. Kopias K, Pinar A. Warp – knitted interlock stitches – new stitch group. Concept of formation and structure. *FIBRES & TEXTILES in Eastern Europe* 2004; 12 (1): 45-46.
22. Nayak RK, Punj SK, Chatterjee KN. Comfort properties of suiting fabrics. *Indian Journal of Fibre and Textile Research* 2009; 34: 122-128.
23. PN-EN ISO 2418:2005. Leather - Chemical, physical and mechanical and fastness tests - Sampling location.
24. PN – 85/O–91000. Footwear – terminology.
25. PN-EN ISO 20344:2012. Personal protective equipment – test methods for footwear.
26. Śmiechowski K, Żarłok J, Kowalska M. The relationship between water vapour permeability and softness for leathers produced in Poland. *Journal of the Society of Leather Technologist and Chemist* 2014; 98 (6): 259-263.
27. Serweta W, Olejniczak Z, Woźniak B. Influence of the thermal and humidity properties of multi – layered lining fabrics on microclimate of leather footwear in: *Innovations in Protective and E-textiles in Balance with Comfort and Ecology*. Lodz University of Technology. Lodz. 2017: 218-227.
28. Serweta W, Olejniczak Z, Woźniak B. Analysis of influence of insole material on comfort sensation during physical exertion. *FIBERS & TEXTILES in Eastern Europe* 2018; 2 (128): 100-103.
29. Langmaier F, Mladek M. Studie mikroklimatu obuvi. *Kozarstvi* 1973; 4: 96-101.
30. Langmaier F. Hygiena a komfort obute nohy. *Kozarstvi* 1990; 12: 345-349.
31. Irzmańska E, Brochocka E, Majchrzycka K. Textile composite materials with bioactive melt – blown nonwovens for protective footwear. *FIBRES & TEXTILES in Eastern Europe* 2012; 20, 6A(95): 119-125.
32. Irzmańska E. Footwear use at workplace and recommendations for the improvement of its functionality and hygiene. *Autex Research Journal* 2014; 2 (14): 89-94.
33. Dahlgren RE. Footwear for facilitating the removal and dissipation of perspiration from the foot of a wearer. US 5511323A. 1996.
34. Ławińska K, Serweta W, Gendaszewska D. Applications of bamboo textiles in children individualized footwear. *FIBERS & TEXTILES in Eastern Europe* 2018; 26, 5(131): 87-92.
35. Majchrzycka K, Jachowicz M, Okrasa M, Bartkowiak G, Dąbrowska A, Gralewicz G, Owczarek G, Irzmańska E. Rozwój funkcjonalności i ergonomii środków oceny indywidualnej z uwzględnieniem innowacyjnych materiałów, systemów i technologii. *Zeszyty Naukowe Wyższej Szkoły Zarządzania Ochroną Pracy w Katowicach*. 2015; 1(11): 38-50.
36. Petrusic S, Bedek G, Onofrei E, Doulat D. Moisture management of underwear fabrics and linings of firefighter protective clothing assembles. *Journal of Textile Institute* 2014; 106 (12): 1270-1281.
37. Zieliński J. Transport pary wodnej i wody przez pakiety materiałów odzieżowych. *Przegląd Włókienniczy – Włókno, Odzież, Skóra*. 2002; 4: 13-16.

38. Serweta W, Matusiak M, Olejniczak Z. Proposal for the selection of materials for footwear to improve thermal insulation properties based on laboratory research. *FIBRES & TEXTILES in Eastern Europe* 2018; 26, 5(131): 75-80.
39. Sanchez – Navarro MM., Peres – Liminana MA., Cuesta – Garrote N, Maestre – Lopez MI., Bertazzo M, Martinez – Sanchez MA, Orgiles – Barcelo C, Aran – Ais F. Latest developments in antimicrobial functional materials for footwear. *Microbial Pathogens and Strategies for Combating Them: Science, Technology and Education* 2013; 1: 102-113.
40. Gugliuzza A, Drioli E. A review on membrane engineering for innovation in wearable fabrics and protective textiles. *Journal of Membrane Science* 2013; 446: 350-375.