

## **References:**

1. Van Dingenen JLJ. *High-performance fibers*. Cambridge: Woodhead Publishing Limited, 2004.
2. Chabba S, van Es M, van Klinken E, Jongedijk M, Vanek D, Gijsman P, et al. Accelerated ageing study of ultra-high molecular weight polyethylene yarn and unidirectional composites for ballistic applications. *Journal of Materials Science* 2007; 42: 2891–2893.
3. Andreia LSA, Lucio FCN, Joao CMS. Influence of weathering and gamma irradiation on the mechanical and ballistic behaviour of UHMWPE composite armour. *Polymer Testing* 2005; 24: 104–113.
4. Burger D, de Faria AR, de Almeida SFM, de Melo FCL. Ballistic impact simulation of an armour-piercing projectile on hybrid ceramic/fiber reinforced composite armours. *International Journal of Impact Engineering* 2012; 43: 63-77.
5. Vaidya UK, Deka LJ, Bartus SD. Damage evolution and energy absorption of Eglass/polypropylene laminates subjected to ballistic impact. *Journal of Materials Science* 2008; 43: 399-410.
6. Medvedovsky E. Lightweight ceramic composite armour system. *Advances in Applied Ceramics* 2006; 105(5): 241–245.
7. NIJ Standard–0101.06. Ballistic Resistance of Personal Body Armou. July 2008.
8. PN-V-87001:2011. Light ballistic armour. Bullet- and fragment-proof protective helmets. Requirements and testing.
9. Chabba S, V Es M, V Klinken EJ, Jongedijk MJ, et al. Accelerated ageing study of ultrahigh molecular weight polyethylene yarn and unidirectional composites for ballistic applications. *J Mater Sci* 2007; 42: 2891-2893.
10. Padovani M, Meulman JH, Louwers D. Effect of real ageing on ballistic articles made of Dyneema® UD. In: *Personal Armour Systems Symposium PASS* 2012, Nuremberg, Germany, 17-21 September 2012, ISBN:978-3-935938-93-8.
11. Meulman JH. Ballistic performance of articles, made with Dyneema®, at elevated temperatures, extreme for body armour – part 2. In: *Personal Armour Systems*

*Symposium PASS* 2012, Nuremberg, Germany, 17-21 September 2012, ISBN:978-3-935938-93-8.

12. Forster AL, et al. Development of soft armour conditioning protocols for NIJ standard NIJ 0101.06: Analytical results, *National Institute of Standards and Technology NISTIR* 7627.
13. Fejdyś M., Łandwijt M., Struszczak M. H.; Effect of Accelerated Ageing Conditions on the Degradation Process of Dyneema® Polyethylene Composites. *FIBRES & TEXTILES in Eastern Europe* 2011, Vol. 19, No. 1 (84) pp. 60-65.
14. Fejdyś M, Cichecka M, Łandwijt M, Struszczak MH. Prediction of the Durability of Composite Soft Ballistic Inserts. *FIBRES & TEXTILES in Eastern Europe* 2014; 22, 6(108): 81-89.
15. Dos Santos Alves AL, Nascimento LFC. Influence of weathering and gamma ir- radiation on the mechanical and ballistic behavior of UHMWPE composite armor. *Polymer Testing* 2005; 24: 104-113.
16. Chin JW, Petit S, Lin C-C, et al. Temperature and moisture effects on the accelerated ageing of UHMWPE and aramid ballistic fibers. In: *Personal Armour Systems Symposium PASS* 2012, Nuremberg, Germany, 17-21 September 2012, ISBN:978-3-935938-93-8.
17. Bourget D, Withnall C, Palmer S, Rice K, Swann S. Aged body armour testing: further results. In: *Personal Armour Systems Symposium PASS* 2012, Nuremberg, Germany, 17-21 September 2012, ISBN:978-3-935938-93-8.
18. Buchanan FJ, White JR, Sim B, et al. The influence of gamma irradiation and ageing on degradation mechanisms of ultra-high molecular weight polyethylene. *J Mater Sci Materials in Medicine* 2001; 12: 29-3.
19. Rocha M, Mansur A, Mansur H. FTIR investigation of UHMWPE oxidation submitted to accelerated ageing procedure. *Macromolecular Symposia* 2010; 296: 487-492.
20. Fejdyś M., Kośla K., Kucharska-Jastrzębek A., Łandwijt M. . Hybride Composite Armour Systems with Advanced Ceramics and Ultra-High Molecular Weight Polyethylene

(UHMWPE) Fibres. *FIBRES & TEXTILES in Eastern Europe* 2016; 24, 3(117): 79-89.

DOI: 10.5604/12303666.1196616.

21. ASTM F1980-07. Accelerated ageing of sterile barrier systems for medical devices.
22. PN-EN ISO 1421/1:2001. Rubber- or plastics-coated fabrics – Determination of tensile strength and elongation at break (ISO 1421:1998).
23. PN-EN ISO 2039-2:2002. Tworzywa sztuczne - Oznaczanie twardości - Część 2: Rockwell hardness.
24. PN-EN ISO 843-4:2007P. Advanced technical ceramics - Mechanical properties of monolithic ceramics at room temperature - Part 4: Vickers, Knoop and Rockwell superficial hardness (EN 843-4:2005).
25. Wieczorkowska G, Kochański P, Eljaszuk M. *Statystyka - wprowadzenie do analizy danych sondażowych i eksperymentalnych*. Wydawnictwo Naukowe Scholar: Warszawa, 2003, p.190-193 and 496-497.
26. Tidjani A. Photooxidation of polypropylene under natural and accelerated weathering conditions. *Journal of Applied Polymer Science* 1998; 64: 2497-2503.
27. Tidjani A., Arnaud R., Dasilva A. Natural and accelerated photoaging of linear low-density polyethylene: Changes of the elongation at break. *Journal of Applied Polymer Science* 1993; 47: 211-216.
28. Bernède J.C., Trégouet Y., Gourmelon E., Martinez F., Neculqueo G. On the degradation of some thiophene oligomers after doping by ion chloride. *Polymer Degradation and Stability* 1997; 56: 55-64.
29. Rabello M. S., White J. R. The role of physical structure and morphology in the photodegradation behavior of polypropylene. *Polymer Degradation and Stability* 1997; 56: 55-73.
30. Karthikeyan K, Russell BP, Fleck NA, Wadley HNG, Deshpande VS. The effect of shear strength on the ballistic response of laminated composite plate. *European Journal of Mechanics A/Solids* 2013; 42: 35-53.