

- netics of iPP component. *J Appl Polym Sci.* 1995; 57(5): 533-538.
10. Canevarolo SV, De Candia F. Stereo-block polypropylene/isotactic polypropylene blends. IV. Cocrystallization and phase separation. *J Appl Polym Sci.* 1996; 61(2): 217-220.
 11. Keith HD, Padden Jr FJ. Spherulitic crystallization from the melt. I. Fractionation and impurity segregation and their influence on crystalline morphology. *J Appl Phys.* 1964; 35(4): 1270-1285.
 12. Keith HD, Padden Jr FJ. Spherulitic crystallization from the melt. II. Influence of fractionation and impurity segregation on the kinetics of crystallization. *J Appl Phys.* 1964; 35(4): 1286-1296.
 13. Wang Z-G, Phillips RA, Hsiao BS. Morphology development during isothermal crystallization. II. Isotactic and syndiotactic polypropylene blends. *J Polym Sci Part B Polym Phys.* 2001; 39(16): 1876-1888.
 14. Kristofic M, Ujhelyiova A, Ryba J. Thermal Properties of Functionalised Metallocene Polypropylene Fibres. *FIBRES & TEXTILE in Eastern Europe* 2012; 20, 4(93): 24-29.
 15. Ramamurthy P, Chellamani KP, Dhurai B, ThankaRajan SP, Subramanian B, Santhini E. Antimicrobial Characteristics of Pulsed Laser Deposited Metal Oxides on Polypropylene Hydroentangled Nonwovens for Medical Textiles. *FIBRES & TEXTILE in Eastern Europe* 2017; 25, 2(122): 112-119. DOI: 10.5604/12303666.1228192.
 16. Broda J, Brachaczek W. Influence of Polypropylene fibre geometry on the mechanical properties of cement mortars. *FIBRES & TEXTILE in Eastern Europe* 2015; 23, 2(110): 123-129.
 17. Koichi N. Idemitsu Kosan Co, Ltd. L-MODU for Nonwovens and Hot Melt Adhesives – A New Type of Polypropylene. Insight Conference Minneapolis USA. 2011, 23rd-27th October.
 18. Koichi N. Idemitsu Kosan Co, Ltd. New polyolefin polymer L-MODU for soft non-wovens. *Chemical Fibers International* March 2011; 62(1): 24.
 19. Chen J-H, Tsai F-C, Nien Y-H, Yeh P-H. Isothermal crystallization of isotactic polypropylene blended with low molecular weight atactic polypropylene. Part I. Thermal properties and morphology development. *Polymer* 2005; 46(15): 5680-5688.
 20. Foresta T, Piccarolo S, Goldbeck-Wood G. Competition between α and γ phases in isotactic polypropylene: effects of ethylene content and nucleating agents at different cooling rates. *Polymer* 2001; 42(3): 1167-1176.



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Tests within the range of textiles' bioactivity - accredited by the Polish Centre of Accreditation (PCA):



- antibacterial activity of textiles **PN-EN ISO 20743:20013**
- method of estimating the action of micro-fungi **PN-EN 14119:2005 B2**
- determination of antibacterial activity of fibers and textiles **PN-EN ISO 20645:2006**.
- method for estimating the action of micro-fungi on military equipment **NO-06-A107:2005** pkt. 4.14 i 5.17



Tests not included in the accreditation:

- measurement of antibacterial activity on plastics surfaces **ISO 22196:2011**
- determination of the action of microorganisms on plastics **PN-EN ISO 846:2002**

A highly skilled staff with specialized education and long experience operates the Laboratory. We are willing to undertake cooperation within the range of R&D programmes, consultancy and expert opinions, as well as to adjust the tests to the needs of our customers and the specific properties of the materials tested. We provide assessments of the activity of bioactive textile substances, ready-made goods and half products in various forms. If needed, we are willing to extend the range of our tests.

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