

Properties of technical textiles based on low-melting PET and short flax fibre

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This study describes possibilities to produce and use nonwoven agricultural textiles from short flax fibres and polyester (PET) fibres. These meltbonded materials are applicable as coating web for plant protection etc. The most important advantage of flax fibres is their biodegradability. The second and not less important fact is that flax is renewable resource. In this study the tensile strength of nonwovens were tested. Since tensile strength of all textiles depends on humidity, the tensile strength was tested also in wet conditions. The water - absorbency and flexural stiffness of the materials was also tested. All these tests were repeated after steeping the specimens for two weeks in water. Finally it can be stated, that the tensile strength of tested materials is in linear correlation with the proportion of thermoplastic PET fibers and with the weight of meltbonded nonwovens; the water - absorbency does not correlate with the proportion of thermoplastic PET fibres and with the weight of meltbonded nonwovens; the flexural stiffness is in linear correlation with the proportion of thermoplastic PET fibers.