



Industrial ScaleUpHighMelting PLA

The aim of this part of the project is to produce multifilament yarn with high melting PLA in industrial scale.

Two processes were provided: discontinuous and continuous process: optimisation of discontinuous process- different parameters- achieving tenacity of N/tex 0,30 and modulus of GPa 5,6

New compound of high melting PLA was tested for both processes:

- ❖ Discontinuous process: Spinning and drawing processes were provided in two steps – hydrolysis stabilized polymer of high T_m PLA – large scale production with fineness of fibre 400/100 (flat yarn) achieving tenacity of N/tex 0.25.
- ❖ Continuous process: Spinning and drawing process in one step, large production with fineness of fibre 500/100 (flat yarn) achieving tenacity of N/tex 0.25

