The mechanical properties of fibres prepared at $\lambda = 3$ using processes β and α are characterised by acceptable coefficients of variance, CV. In the case of non- and modified fibres, the main differences are in the tensile strength and Young modulus only, which are always lower for process α than for β process, which points to a more precise industrial process.

The elongation at break values, CV, are higher but equal for both modified and non-modified PA 6 fibres. The fact that CV values are not significantly different confirms the affirmation that the evenness of modified fibres is comparable with that of non modified PA 6 fibres.

Conclusion

1. The periods of concentrate synthesis and molecular weights of the concentrates are lower in comparison with those of PA 6.

2. The thermal characteristics - melting temperatures and melting enthalpies of all the concentrates are lower compared with those of PA 6, but the concentrates can vary among semicrystalline compounds.

3. The lower amount of concentrates in modified PA 6 fibres and the nanoadditive Cloisite 15A contribute to higher mechanical characteristics.

4. Drawing process α ($\lambda_1 = 3$) conserves the mechanical properties of PA 6 fibres modified with concentrates AC and DX.

5. Drawing process β at a drawing ratio $\lambda_2 = 3.5$ ensures a higher tensile strength of PA 6 fibres modified with concentrates AC and DC.

6. The evenness of modified fibres is good.

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