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Sommario/riassunto	In this work, initially, the requirements on a simulation model of the non-isothermal stamp forming process of unidirectional fiber-reinforced, and thermoplastic tape laminates are investigated experimentally. On this basis, different isothermal as well as a fully coupled thermomechanical simulation model under consideration of the crystallization kinetics are developed. For validation, a complex shaped geometry is simulated and compared to experimental forming results.