

1. Record Nr.	UNINA9910513701303321
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Titolo	Simulation of the thermoforming process of UD fiber-reinforced thermoplastic tape laminates
Pubbl/distr/stampa	Karlsruhe, : KIT Scientific Publishing, 2021
ISBN	1000099858
Descrizione fisica	1 electronic resource (336 p.)
Collana	Karlsruher Schriftenreihe Fahrzeugsystemtechnik
Soggetti	Mechanical engineering & materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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.