Record Nr. UNINA9910438322403321 Autore Rehkopf Jackie D. Titolo Automotive carbon fiber composites: from evolution to implementation // by Jackie D. Rehkopf Pubbl/distr/stampa Warrendale, Pa. (400 Commonwealth Dr., Wallendale PA USA): .: Society of Automotive Engineers, , ©2012 [Piscatagay, New Jersey]:,: IEEE Xplore,, [2011] **ISBN** 0-7680-8880-1 Edizione [1st ed.] Descrizione fisica 1 online resource (x, 117 pages): illustrations Collana Society of Automotive Engineers. Electronic publications. Disciplina 629.232 Soggetti Plastics in automobiles Carbon fibers Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction -- Carbon Fiber Composite Constituents: Fiber and Resin Types for Automotive -- Carbon Fiber Composite Construction --Manufacturing Processes for Carbon Fiber Composites -- Machining and Joining -- Reclaiming/Recycling Carbon Fiber Composites --Implementation and Longevity -- Concluding Thoughts. Sommario/riassunto The development of new materials that are technically and economically viable is no small endeavor. The risks, costs, and time involved in research are usually so high that only governments or private consortia can bear them. And so it has been with the trajectory of carbon fiber reinforced composites, which are capable of providing the lightweighting needed for fuel efficiency, and the mechanical strength required for safety. After a long development cycle, this

material is now being widely used by the military, in commercial

aircraft, and in the automotive industry.