

References

1. BMW AG. *Recyclingverfahren*. DE 102009023529 A1, 02.10.2012.
2. Lawrence CA, Havis SB and Akonda M. *Carbon fibre yarn and method for the production thereof*. Patent US2013/0192189 A1, USA, 2013.
3. SGL Carbon SE. *Garn oder Nähgarn und Verfahren zum Herstellen eines Garns oder Nähgarns*. DE 102010030773 A1, 05.01.2012.
4. Akonda M, Lawrence CA and Weager BM. Recycled carbon fibre-reinforced polypropylene thermoplastic composites. *Composites Part A: Applied Science and Manufacturing* 2012. 43.1: 79-86.
5. Akonda M, EL-Dessouky HM, Lawrence CA and Weager, B.M. A novel non-crimped thermoplastic fabric prepreg from waste carbon and polyester fibres. *Journal of Composite Materials* 2013, DOI: 10.1177/0021998313478992.
6. Kobayashi T, Sonobe N and Iwamoto S. *Hybrid carbon fibre spun yarn and hybrid carbon fibre spun yarn fabric using the same*. Patent US20080152906 A1, USA, 2008.
7. E.I. Du Pont de Nemours and Company (Wilmington, DE). Composites of stretch broken aligned fibers of carbon and glass reinforced resin. US Patent 4759985, 1988.
8. Guevel J, Francois M, Bontemps, G. Carbon fiber yarn. US patent 4825635, 1989.
9. Pepin JN. Continuous/discontinuous filament yarn or tow. US Patent 5487941, 1996.
10. Hansen NW. Stretch breaking of fibers. US Patent 6477740 B1, 2002.

11. Stowe Pharr Mills Inc. High strength spun yarn produced from continuous high-modulus filaments, and process for making same. EP 1774074 B1, 2008.
12. Sigrafil C SBY 70. http://www.sglgroup.com/cms/international/press-lounge/news/2013/11/11192013_p.html?__locale=en, (accessed 08 January 2015).
13. Sigmund I.: Längeres Leben. *Carbon Composites e.V. Magazin* Nr. 1 (2016)
14. Schinner G, Brandt J, Richter H.: Recycling Carbon Fibre-Reinforced Thermoplastic Composites. *Journal of Thermoplastic Composites Materials*, 9(1996)
15. Gulich B and Hofmann M. From black gold to the „golden fleece“, *Allgemeiner Vliesstoff-Report* 2013, Vol. 4.
16. Mazumdar S.: Composites manufacturing: materials, product, and process engineering. CRC press (2001)
17. Hengstermann M, Abdkader A and Cherif Ch. New yarn constructions from recycled carbon staple fibres and thermoplastic fibres for composite. In: Proceedings. 54. *Chemiefasertagung Dornbirn*, Dornbirn, Austria, 16.-18. September 2015.
18. Hengstermann M, Raithel N, Abdkader A and Cherif Ch. Spinning of staple hybrid yarn from carbon fibre wastes for lightweight constructions. Presentation / 20. *Symposium Verbundwerkstoffe und Werkstoffverbunde*, Wien, Austria, 01.-03. July 2015.
19. Hengstermann M, Raithel N, Abdkader A and Cherif Ch. Spinning of staple hybrid yarn from carbon fiber wastes for lightweight constructions. *Materials*

Science Forum 2015, 825-826, DOI: 10.4028/www.scientific.net/MSF.825-826.60, pp. 695-698.

20. Hengstermann M, Abdkader A and Cherif Ch. Production of innovative spun hybrid yarns made from recycled carbon fibers for high strength CFRP. In: Proceedings. *15th Autex World Textile Conference 2015*, Bucharest, Romania, June 2015.
21. Hengstermann M, Raithel N, Abdkader A, Hasan MMB and Cherif Ch. Development of new hybrid yarn construction from recycled carbon fibres (rCF) for high performance composites. Part-I: Basic processing of hybrid CF/PA 6 yarn spinning from virgin CF staple fibres. *Textile Research Journal* 2015, DOI 0040517515612363.
22. Krucinska I, Gliscinska E, Mäder E and Hässler R. Evaluation of the influence of glass fibre distribution in polyamide matrix during the consolidation process on the mechanical properties of GF/PA6 composites. *Fibres and Textiles in Eastern Europe* 2009, Vol. 17 No. 1 (72) pp. 81-86.
23. Hengstermann M, Bardl G, Rao H, Abdkader A, Hasan MMB and Cherif Ch. Development of a method for the characterization of fibre length of long staple carbon fibres based on image analysis. *Fibres and Textiles in Eastern Europe* 2016; 24, 4(118): 39-44. DOI: 10.5604/12303666.1207845.
24. Thomason JL, Vlugg MA. Influence of Fibre Length and Concentration on the Properties of Glass Fibre-Reinforced Polypropylene: Part 3, Strength and Strain at Failure, *Composites Part A* 1996, Vol. 27, pp. 1075-1084.