



Document details

< Back to results | 1 of 1

📄 Export 📄 Download 🖨️ Print ✉️ E-mail 📄 Save to PDF ☆ Add to List More... >

View at Publisher

Progress in Rubber, Plastics and Recycling Technology
2020

A review on kenaf fiber hybrid composites : Mechanical properties , potentials, and challenges in engineering applications

(📄 Article in press ?)

Yusuff, I., Sarifuddin, N. ✉️, Ali, A.M. 👤

Department of Manufacturing and Material Engineering, Kuliyyah of Engineering, International Islamic University Malaysia, Kuala Lumpur, Malaysia

Abstract

View references (88)

The developments of agricultural-based composites for structural applications such as in construction, aerospace, and automotive have gained tremendous interest from researchers due to the uniqueness of its behaviors. Among available agricultural fibers, kenaf fiber widely adopted as a reinforcement in polymer composites to form kenaf reinforced polymer matrix composites. The hybridization technique was introduced to enhance the mechanical performances of composite materials wherein two different types of reinforcements were employed to form a hybrid composite. Therefore, in this review paper, the investigations focus on the mechanical properties of kenaf hybrid composites as well as potentials and barriers of agricultural-based composites were discussed to provide a literature source for future research regarding this topic. © The Author(s) 2020.

SciVal Topic Prominence ⓘ

Topic: Kenaf Fibers | Sisal | Coir

Prominence percentile: 99.897 ⓘ

Author keywords

Hybrid composite mechanical properties natural fiber polymer composite

Funding details

Funding sponsor	Funding number	Acronym
International Islamic University Malaysia		IIUM
International Islamic University Malaysia		IIUM
Ministry of Higher Education, Malaysia		MOHE
Ministry of Higher Education		MOHE
Ministry of Higher Education, Malaysia		MOHE
Ministry of Higher Education		MOHE

Metrics ⓘ View all metrics >



PlumX Metrics

Usage, Captures, Mentions, Social Media and Citations beyond Scopus.

Cited by 0 documents

Inform me when this document is cited in Scopus:

Set citation alert >

Related documents

Effect of water absorption on the mechanical properties of hybrid interwoven cellulosic-cellulosic fibre reinforced epoxy composites

Maslinda, A.B. , Abdul Majid, M.S. , Ridzuan, M.J.M. (2017) *Composite Structures*

Mechanical properties of kenaf fibre reinforced polymer composite: A review

Saba, N. , Paridah, M.T. , Jawaid, M. (2015) *Construction and Building Materials*

Review of kenaf reinforced hybrid biocomposites: Potential for defence applications

Yahaya, R. , Sapuan, S.M. , Jawaid, M. (2018) *Current Analytical Chemistry*

View all related documents based on references

Find more related documents in Scopus based on:

Authors > Keywords >

Funding text #1

The authors would like to express their gratitude to the Ministry of Higher Education (MOHE) of Malaysia for their support, Kuliyyah of Engineering International Islamic University Malaysia (IIUM), and also to Research Management Centre (RMC) IIUM for facilitating this project.

Funding text #2




The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Ministry of Higher Education (MOHE) of Malaysia through grant no. FRGS 17-033-0599.

ISSN: 14777606
CODEN: PRPRC
Source Type: Journal
Original language: English

DOI: 10.1177/1477760620953438
Document Type: Article
Publisher: SAGE Publications Ltd

References (88)

[View in search results format >](#)

All [Export](#)  [Print](#)  [E-mail](#)  [Save to PDF](#) [Create bibliography](#)

- 1 Chandra, D.S., Haque, N.E.
Applications of fiber reinforced polymer composites (FRP) in civil engineering
(2014) *Int J Adv Struct Geotech Eng*, 3, pp. 2319-5347.
-
- 2 Motavalli, M., Czaderski, C., Schumacher, A., Gsell, D.
Fibre reinforced polymer composite materials for building and construction
(2010) *Textiles, Polymers and Composites for Buildings*, pp. 69-128. Cited 5 times.
<http://www.sciencedirect.com.ezproxy.um.edu.my/science/book/9781845693978>
ISBN: 978-184569397-8
doi: 10.1533/9780845699994.1.69
[View at Publisher](#)
-
- 3 Al-Oqla, F.M., Sapuan, S.M.
Natural fiber reinforced polymer composites in industrial applications: Feasibility of date palm fibers for sustainable automotive industry
(2014) *Journal of Cleaner Production*, 66, pp. 347-354. Cited 331 times.
doi: 10.1016/j.jclepro.2013.10.050
[View at Publisher](#)
-
- 4 Friberg, E., Olsson, J.
(2014) *Application of fiber-reinforced polymer materials in road bridges—general requirements and design considerations*, p. 359. Cited 2 times.
Chalmers University of Technology, Göteborg
-
- 5 Manikandan, A., Rajkumar, R.
Evaluation of mechanical properties of synthetic fiber reinforced polymer composites by mixture design analysis
(2016) *Polymers and Polymer Composites*, 24 (7), pp. 455-462. Cited 4 times.
<http://www.polymerjournals.com/pdfdownload/1233311.pdf>
doi: 10.1177/096739111602400702
[View at Publisher](#)