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Mechanical Properties of Magnesium Hydroxide/Halloysite Nanotubes Reinforced Polyamide 11 Nanocomposites

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In this study, polyamide 11 (PA 11) and halloysite nanotubes (HNTs) with varying magnesium hydroxide (MH) contents were prepared using a twin-screw extruder and injection moulding process. The mechanical properties of nanocomposites were investigated. The nanocomposites are made up of 100 phr of PA11 and 4 phr of HNTs, with three different MH loadings of 10, 20 and 30 phr. Tensile and

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Thermal, Dynamic Mechanical, Mechanical and Flammability Properties of Halloysite Nanotubes Filled Polyamide 11 Nanocomposites

Azahari, N.N.A. , Anuar, H. , Hassan, A.

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Development of polyamide 6/polyamide 66 copolymer nanocomposite and its additive manufacturability

Kim, S.D. , Wu, H. , Koo, J.H. (2020) *CAMX 2019 - Composites and Advanced Materials Expo*

Additive manufacturing of polyamide 6/66 copolymer nanocomposites: Thermal and flammability properties


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flexural strength showed slightly increase while Young's and flexural modulus continuously increased with addition of MH. Meanwhile, the impact strength and elongation at break decreases. © 2023, The Author(s), under exclusive license to Springer Nature Singapore Pte Ltd.

Author keywords

Halloysite nanotubes; Magnesium hydroxide; Mechanical properties; Nanocomposites; Polyamide

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